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Through the courtesy of the author, and of the publishers, Messrs. JOHN WILE & SONS, of New York, we are enabled to give extracts from advance sheets of Mr. DRINKER's great work upon *Tunneling, Explosives, and Rock Drills*. These extracts will extend through many numbers of the JOURNAL, and will summarize briefly some interesting and instructive chapters of this exhaustive treatise. Of course they can at best give but a faint idea of the extent and thoroughness of the work itself. We have no doubt but that, after reading these extracts, many of our readers will desire the fuller information on the subject treated, which it is not our object, nor would our limited space permit us, to give. We shall defer till the book has appeared a general review of its contents; but the extracts we give, which this week are necessarily very full—the chapter on the history of tunneling being itself a model of condensation—will be found full of interest to miners as well as engineers everywhere.

AMERICAN EXHIBITS AT THE PARIS EXHIBITION.

The rapid approach of the time fixed for the opening of the Paris Exhibition of 1878 renders it incumbent on us to remind those of our readers who intend to take action in this connection, that they should enter at once upon the preparation of their exhibits, so as to send in applications for space as soon as the commission shall have been appointed by our government.

It is of very great importance to this country that our inventors and manufacturers should be well represented in Paris next year. The French have an idea that this is a country of inventors and mechanics, but are entirely ignorant as to the specialties in which we excel. We should show this to them through the medium now offered us at the expense of both governments. There will undoubtedly in the future be a considerable market for our productions in Europe. Among the many subjects which should be exhibited in Paris are the following:

Special processes for the treatment of ores for the extraction of the precious metals; all kinds of machinery used in mining, milling, and concentration of ores, such as hoisting and pumping engines, ventilators, rock drills, ore dressing machinery, smelting, roasting and chloridizing furnaces, hotblast arrangements, Bessemer and Siemens-Martin plant, etc.; wire ropes, rope tramways, iron bridges, in which our engineers excel; engineer's instruments, mineral samples and products, manufacturing and agricultural machinery and products.

Though the time is exceedingly short, it is sufficient, with the characteristic energy of our people, to make our exhibit creditable if suitable measures be immediately undertaken.

The Paris Exhibition is national and under the entire control of the government. Space, steam power, gas and water, are given free. Goods, products or inventions entering the Exhibition grounds are protected upon the simple application for a certificate, delivered gratuitously, and the said certificate is good for three months after the close of the Exhibition, and without prejudice to the patent. All goods exhibited and sold shall pay only the duty according to the tariffs of the most favored nation. This is the best opportunity that can be offered to American manufacturers to learn how they can compete with other nations in foreign markets.

Messrs. HAIGHT BROS. & Co., of 25 Pine Street, New York, offer to attend to American exhibits at the Exhibition, and, having in their partner, M. CHANTAL, a gentleman long connected with French-American affairs in Paris, will, we have no doubt, do so with entire satisfaction to those who intrust them with their business; they can also furnish any information which prosing exhibitors may desire.

THE READING RAILROAD MANAGEMENT.

Mr. CHARLES E. SMITH has published within the past week a report of a committee, composed of himself, Mr. ISAAC HINKLEY, and Mr. J. B. LIPPINCOTT, which report was made in November, 1876, and relates only to the business of the company previous to November 30, 1875.

Mr. SMITH makes very serious charges against Mr. GOWEN, President of the Reading Railroad Company, or, at least, charges which would have been very serious had they been made openly when what he claims to be gross mismanagement and deception was first discovered.

That Mr. SMITH, knowing, as he claims, that the stockholders of the company were being wronged, nevertheless held his peace, except to a small number of them, for more than a year, while the two gentlemen who signed this report with him still continue as directors of the company, and consented to the issue last year—subsequent to the date of Mr. SMITH's examination—of Mr. GOWEN's annual report to the stockholders, in which the statement made of the company's business does not agree with that of Mr. SMITH's committee, are facts which throw great discredit upon this report, and upon the motives which now lead to its publication. The avowed reason for not publishing these disclosures at the time—because "the company was then negotiating" further loans—is certainly not a good one for an honest man.

Mr. SMITH summarizes his conclusions as follows:

"*First.* The real earnings of the Railroad and the Coal & Iron Company since 1871, have been $2,347,680.37; and the dividends paid by the Railroad $18,040,264.32, or over seven times the real profits.

"*Second.* That, on two occasions, the amount of the floating debt was transferred, on the day when the books of the Railroad Company were to be balanced, from the books of the Railroad to those of the Coal & Iron Company, and so concealed from the Board and the stockholders.

"*Third.* That the loss on the collieries worked by the company has been $2,050,635.58, and the gain on those leased has been $1,753,191.99; the difference, $297,445.59, being the net loss, according to the books, in the entire coal mining operations of both kinds. This result, to my mind, demonstrates clearly the good policy of leasing the collieries."

Mr. GOWEN has already given an explanation of the loss in mining, by citing the fact, which every one familiar with the region knows, that when the company purchased the collieries they were mostly in very bad condition and had practically to be reopened. During the time required for getting them into good order the cost of mining would naturally be very great. Now, we know, from an examination of the colliery books which we were recently permitted to make, the cost of mining by the company is certainly as little as, and probably less than, that of any other large operator in the anthracite coal fields, and the mines are in excellent condition and better than is usual in that region. The serious charge of improperly transferring accounts, we have no doubt, has another side to it which is satisfactory to Mr. GOWEN's stockholders, for these charges of Mr. SMITH, though now first put in print, have been known to many persons, including the largest stockholders, for a long time past, and it is certain that the warm encouragement that these hold out to Mr. GOWEN at the meeting held in London some months ago was, as was there stated by several speakers, because of the *honesty* of his management. That this company as well as nearly or quite all the others in the coal trade divided as dividends money which they should have used to reduce indebtedness, we have many times stated in these pages as our opinion. This, no doubt, is the strongest point in Mr. SMITH's letter, but its effect as well as that of his other charges is quite neutralized by the fact that he more than a year ago of what he claims to be dishonest and bad management, and did not promptly and publicly expose it as an honest man should. This virtue which is revealed only after a year's incubation, is not as effective as that which shows itself unmistakably when wrong-doing is first discovered.

SILVER DOLLARS.—VI.

A Fiction Well Stuck To.

Mr. JONES, in the Senate, and Mr. BLAND, in the House, may divide the credit of being the original repeaters, if not the authors, of the story that silver was demonetized in 1873, "surreptitiously, by a trick of legislation in the interest of bankers and capitalists, or of the foreign holders of our national bonds, or of the creditor class generally." Probably neither of these gentlemen dreamed that the assertion which they made in their haste, and which was immediately and conclusively disproved by reference to notorious facts and unquestioned documents, would retain so much vitality.

"When the brains are out, the man should die," is a plausible rule; but it is based on the supposition that while the man was alive the brains were in him, and hence it does not apply to cases of existence, brainless from the beginning. This story was so preposterous on its face that whoever could believe it at all would continue to believe it in spite of all disproof. Hence it "springs perennial" all over the country. It adorns the columns of rural papers, and even that extreme veteran, THURLOW WEED, in his communications to the New York *Tribune*, varies his Scriptural arguments concerning the use of silver as money, by reiterating this stale and puerile slander concerning the alleged foul and stealthy assassination by which the staunch old silver dollar was done to death.

We have already exposed this falsehood, but we now give in another column, more fully than before, the facts in the case, with reference to public documents, from which it will be seen—

1. That the Act of 1873, in its main features, *including the provision discontinuing the coinage of the silver dollar*, was prepared by Mr. KNOX in 1870.

2. That the silver dollar was then out of circulation, being worth in gold $1.0312, and hence it was not for the interest of creditors to demonetize it.

3. That this feature of the bill was pointed out by Mr. KNOX in his accompanying report, and was recognized and discussed in Congress.

4. That the bill was read in Senate and House several times, printed in full by order of Congress thirteen times, considered at length in five different sessions of committees, debated in the Senate to the extent of sixty-six columns, and in the House to the extent of seventy-eight columns, of the *Congressional Globe*, and finally passed in February, 1873, after two years and ten months of public notice and formal official discussion, to say nothing of the many months during which Mr. KNOX was preparing the bill, in consultation with numerous experts and business men.

Mr. BLAND'S bill, on the other hand, was reported in the summer of 1876 from the House Committee of Mines and Mining, which had no business with the subject. The circumstances attending this opening of the silver campaign were such as ought to make its originators blush for shame whenever tricks in legislation are mentioned. But they are outdone by the performance of Mr. BLAND in the late extra session, when he substituted "surreptitiously," for a bill specially in order, his own, which was not in order; and by this device, secured its immediate passage, *without debate*.

The history of Senator JONES'S Silver Commission is scarcely less creditable. Its one-sided investigations, and its one-sided publication of them, deserve to be analyzed and suitable labeled. But we postpone the task for a little, contenting ourselves with the observation that the party which is attempting, by every species of parliamentary tactics, to evade debate, suppress inquiry, and palm off upon the country for justice what is merely jobbery, cannot cover up its own trickery with the additional trick of charging the same offense upon its opponents. *

CORRESPONDENCE.

THE EUREKA-RICHMOND DECISION.

GEORGETOWN, Colo., Nov. 21, 1877.

TO THE EDITOR—SIR: In your issue of September 8, in your article on the Eureka-Richmond decision, you take the view that owners of patented locations cannot follow their veins outside of their surface locations, and confirm this view in your issue of September 29. As there are some here, myself among the number, who cannot see from reading the decision where the court has decided this point in this manner, and knowing that Dr. Raymond was present at the trial, we would like you to explain to us several points in the decision that appear to conflict with your views.

I think you will agree with me that evidently the court considered this an important decision, and prepared it with great care; and upon every point, except following veins beyond the side lines of the surface locations, the meaning of the court will not be questioned.

But did the court decide this point? I find but one place in the decision where they speak of *surface* lines; but what has given me the impression that the court did not intend to decide the question of following veins beyond the side lines of the surface location, is the statement, "And inasmuch as the ground in dispute lies within planes drawn vertically downward through the end lines of the plaintiff's patented locations, our conclusion," etc., and the care the court has taken to always mention *end* lines as being the lines beyond which a claimant could not pass.

Now, if it is the meaning of the court in this case that an owner of a patented claim cannot follow his lode beyond the side lines when the top or apex of the lode is outside of his surface location, why does the court say that he is permitted to hold so much of the ledge or lode "as lay within vertical planes drawn down through the *end* lines of his location, and could be measured *everywhere by the feet on the surface*"?

The court also says:

"That the surface land taken up in connection with a linear location on the ledge or lode is, under the Act of 1866, *intended solely for the convenient working of the mine*, and does not measure the miner's right, *either to the linear feet upon its course*, or to follow the dips, angles, and variations of the vein, *or control the direction he shall take*. But the line of location taken does measure the extent of the miner's right. That must be *along the general course, or strike, as it is termed, of the ledge or lode*. Lines drawn vertically down through the ledge, or lode, *at right angles with a line representing this general course*, at the ends of the claimant's line of location, will carve out, so to speak, a section of the ledge, or lode, within which he is permitted to work, and out of which he cannot pass."

If this means that the owner of a patented location cannot work that part of his lode where the top or apex lies without his surface location, please explain it so that all can understand it, if possible, and very much oblige a number of the readers of your valuable paper. MINER.

This correspondent quotes correctly the decision of the court in the case referred to, but labors under a strange misapprehension as to the opinion expressed in the JOURNAL. Of the two numbers to which he refers, the second (Sept. 29) contains merely a reference to the first; and the first (Sept. 8) nowhere expresses or implies the view questioned by our correspondent, that owners of patented mines cannot follow veins outside of their surface locations. On the contrary, we repeatedly specified the *end* lines of the patent survey as the governing boundaries. Our article was quite as explicit as the decision.

The final question, whether the owner may work that part of his lode *where the top or apex lies without his surface location*, depends, in one aspect only, on the decision as to what are the end lines of his claim. In our judgment, both the law of 1866 and that of 1872 are clear that the right to enter "land adjoining" is confined to workings *in depth and on the dip*. This view is, first, a fair deduction from the words of both statutes. Secondly, it follows from the fact that the law of 1872 gives to the patentee that portion of all veins topping within his claim which is included between the end lines thereof. But the law cannot give the same thing to two parties; hence the neighbor cannot pursue a vein into the land adjoining on its strike or course, but only on its dip. Thirdly, in considering any given vein the sides of the patent survey which it crosses in its course constitute the end lines of the claim with regard to it. This last is our view; we do not think it was adjudicated in the late decision, because it was not a point involved. The end lines of the patents put in evidence were not disputed, and the court held them to be controlling boundaries. *

THE HISTORY OF THE ACT OF 1873.

WAS THE SILVER DOLLAR SURREPTITIOUSLY ABOLISHED?

[Condensed from a speech by Hon. A. S. Hewitt, in the House of Representatives, August 5, 1876.]

On April 25, 1870, the Secretary of the Treasury transmitted the following letter to Hon. John Sherman, chairman of the Finance Committee of the Senate:

"TREASURY DEPARTMENT, April 25, 1870.

"SIR: I have the honor to transmit herewith a bill revising the laws relative to the mint, assay offices, and coinage of the United States, and accompanying report. The bill has been prepared under the supervision of John Jay Knox, Deputy Comptroller of the Currency, and its passage is recommended in the form presented. It includes, in a condensed form, all the important legislation upon the coinage, not now obsolete, since the first mint was established, in 1792; and the report gives a concise statement of the various amendments proposed to existing laws, and the necessity for the change recommended. There has been no revision of the laws pertaining to the mint and coinage since 1837, and it is believed that the passage of the inclosed bill will conduce greatly to the efficiency and economy of this important branch of the Government service.

I am, very respectfully, your obedient servant,

GEO. S. BOUTWELL,
Secretary of the Treasury."

The report and the bill were referred on April 28, 1870, to the Finance Committee of the Senate, and subsequently, on May 2, 1870, five hundred additional copies were ordered to be printed for the use of the Treasury Department. The report says:

"The method adopted in the preparation of the bill was first to arrange in as concise a form as possible the laws now in existence upon these subjects, with such additional sections and suggestions as seemed valuable. Having accomplished this, the bill, as thus prepared, was printed upon paper with wide margin, and in this form transmitted to the different mints and assay offices, to the first comptroller, the treasurer, the solicitor, the first auditor, and to such other gentlemen as are known to be intelligent upon metallurgical and numismatical subjects, with the request that the printed bill should be returned with such notes and suggestions as experience and education should dictate. In this way the views of more than thirty gentlemen, who are conversant with the manipulation of metals, the manufacture of coinage, the execution of the present laws relative thereto, the method of keeping accounts, and of making returns to the Department, have been obtained with but little expense to the Department, and little inconvenience to correspondents. Having received these suggestions, the present bill has been framed, and is believed to comprise within the compass of eight or ten pages of the Revised Statutes, every important provision contained in more than sixty different enactments upon the mint, assay offices, and coinage of the United States, which are the result of nearly eighty years of legislation upon these subjects."

The amendments proposed by the bill were as follows:

PROPOSED AMENDMENTS.

"The new features of the bill now submitted are chiefly: The establishment of a Mint Bureau at the Treasury Department, which shall also have charge of the collection of statistics relative to the precious metals; the consolidation of the office of superintendent with that of the treasurer, thus abolishing the latter office, and disconnecting the mint entirely from the office of assistant treasurer; the repeal of the coinage charge, and authorizing the exchange of unparted for refined bars; a reduction in the amount of wastage, and the tolerance (deviation in weight and fineness) in the manufacture of coin; requiring the token coinage to be of one material of uniform value, and to be redeemed under proper regulations when issued in excess, and the expense of its manufacture to be paid from specific appropriations, and not from the gain arising in its manufacture, as heretofore; an entire change in the manner of issuing the silver (subsidiary) coinage; *discontinuing the coinage of the silver dollar;* limiting the amount of silver to be used as alloy, so as to make the gold coinage of uniform color; the destruction of the dies not in use annually; requiring vouchers to pass between the different offices of the mint in all transfers of bullion or coin; requiring increased bonds from officers of the mint, and authorizing each officer to nominate his subordinate before appointment; and also making it an offense to increase or diminish the weights used in the mint."

The report of Mr. Knox called special attention to the discontinuance of the silver dollar as a standard, as may be seen from the following paragraph on page 11:

SILVER DOLLAR—ITS DISCONTINUANCE AS A STANDARD.

"The coinage of the silver dollar piece, the history of which is here given, is discontinued in the proposed bill. It is by law the dollar unit, and assuming the value of gold to be fifteen and one-half times that of silver, being about the mean ratio for the past six years, is worth in gold a premium of about 3 per cent. (its value being $103.12) and intrinsically more than 7 per cent. premium in our other silver coins, its value thus being $107.42. The present laws consequently authorize both a gold-dollar unit and a silver-dollar unit, differing from each other in intrinsic value. The present gold-dollar piece is made the dollar unit in the proposed bill, and the silver-dollar piece is discontinued. If, however, such a coin is authorized, it should be issued only as a commercial dollar, not as a standard unit of account, and of the exact value of the Mexican dollar, which is the favorite for circulation in China and Japan, and other oriental countries."

The appendix to the report contained a copy of the English Coinage Act of 1870, and four tables giving (1) the existing coinage, including the silver dollar; (2) the proposed coinage in which the silver dollar was omitted; (3) a metric system of coinage suggesting the issue of a subsidiary silver coinage consisting of two half dollars constituting in weight and fineness an exact equivalent to the French five-franc piece, and a quarter dollar and dime with proportionate weight and fineness, which proposition was finally adopted; (4) a table giving a comparison of coinage existing and proposed. A note at the foot of this table states that the silver dollar, half-dime, and three-cent piece are omitted in the proposed bill. Subsequently, on June 25, 1870, the Secretary of the Treasury transmitted to the House of Representatives a letter of the then deputy comptroller of the currency, together with copies of the correspondence of the Department with the officers of the different mints, assay offices, and other experts in reference to the bill and report previously submitted. * * *

On December 19, 1870, the bill was reported from the Finance Committee of the Senate, and printed with amendments.

On January 9, 1871, in accordance with previous notice, the bill came before the Senate, and was discussed during that day and the following day by Senators Sherman, Sumner, Bayard, Stewart of Nevada, Williams, Casserly, Morrill, and others, and passed the Senate on the 10th by a vote of 36 yeas to 14 nays.

On January 13, 1871, on motion of Hon. William D. Kelley, the Senate bill was ordered to be printed. On February 25, 1871, Mr. Kelley, the chairman of the Committee on Coinage, reported the bill back with an amendment in the nature of a substitute, when it was again printed and recommitted. Mr. Kelley again, on March 9, 1871, introduced the bill in the Forty-second Con-

gress, when it was ordered to be printed, and referred to the Committee on Coinage when appointed.

On January 9, 1872, the bill was reported by Mr. Kelley, chairman of the Coinage Committee, with the recommendation that it pass. The bill was read, and discussed at length by Messrs. Kelley, Potter, Garfield, Maynard, Dawes, Holman, and others. Mr. Kelley, in the opening speech, said:

"The Senate took up the bill and acted upon it during the last Congress and sent it to the House; it was referred to the Committee on Coinage, Weights, and Measures, and received as careful attention as I have ever known a committee to bestow on any measure. * * *

"We proceeded with great deliberation to go over the bill *not only section by section, but line by line, and word by word;* the bill has not received the same elaborate consideration from the Committee on Coinage of this House, but the attention of each member was brought to it at the earliest day of this session; each member procured a copy of the bill and there has been a thorough examination of the bill again."—*Congressional Globe*, volume 100, page 322.

On January 10, 1872, the bill after considerable discussion was again recommitted, and on February 9, 1872, it was again reported from the Coinage Committee by Hon. Samuel Hooper, printed and recommitted, and on February 13 1872, reported back by Mr. Hooper with amendments, printed, and made the special order for March 12, 1872, until disposed of.

On April 9, 1872, the bill came up in the House for consideration. Mr. Hooper, in a carefully prepared speech of ten columns, explained the provisions of each section of the bill. In this speech (page 2,306, volume 102, of the *Congressional Globe*) he says:

"Section 16 re-enacts the provisions of the existing laws defining the silver coins and their weights, respectively, except in relation to the silver dollar, which is reduced in weight from 412½ to 384 grains, thus making it a subsidiary coin in harmony with the silver coins of less denomination to secure its concurrent circulation with them. The silver dollar of 412½ grains, by reason of its bullion or intrinsic value being greater than its nominal value, long since ceased to be a coin of circulation, and is melted by manufacturers of silverware. It does not circulate now in commercial transactions with any country, and the convenience of these manufacturers in this respect can better be met by supplying small stamped bars of the same standard, avoiding the useless expense of coining the dollar for that purpose."

Mr. Stoughton, of the Coinage Committee, also made a speech of seven columns, in which he says:

"The silver coins provided for are the dollar, 384 grains troy, the half-dollar, quarter-dollar, and dime, of the value and weight of one-half, one-quarter, and one-tenth of the dollar, respectively; and they are made a legal tender for all sums not exceeding $5 at any one payment. The silver dollar, as now issued, is worth for bullion three and one-fourth cents more than the gold dollar, and seven and one-fourth cents more than two half dollars; having a greater intrinsic and nominal value, it is certain to be withdrawn from circulation whenever we return to specie payment, and to be used only for manufacture and exportation as bullion."

Mr. Potter, in commenting upon the bill, says:

"This bill provides for the making of changes in the legal-tender coin of the country, and for substituting as legal-tender coin *of only one metal instead as heretofore of two.* I think myself this would be a wise provision, and that legal-tender coins, except subsidiary coin, *should be of gold alone;* but why should we legislate on this now when we are not using either of those metals as a circulating medium?

"The bill provides also *for a change in respect of the weight and value of the silver dollar*, which I think is a subject which, when we come to require legislation about it at all, will demand at our hands very serious consideration, and which, as we are not using such coins for circulation now, seems, at this time, to be an unnecessary subject about which to legislate."—Page 2,310, volume 102.

Mr. Kelley also said:

"*It is impossible to retain the double standard. The values of gold and silver continually fluctuate.* You cannot determine this year what will be the relative values of gold and silver next year. They were 15 to 1 a short time ago; they are 16 to 1 now.

"Hence all experience has shown that you must have one standard coin which shall be a legal-tender for all others, and then you may promote your domestic convenience by having a subsidiary coinage of silver, which shall circulate in all parts of your country as legal-tender for a limited amount, and be redeemable at its face value by your government. But, sir, I again call the attention of the House to the fact that the gentlemen who oppose this bill insist upon maintaining a silver dollar worth three and one-half cents more than the gold dollar, and worth seven cents more than two half dollars, and that so long as those provisions remain you cannot keep silver coin in the country."

On May 27, 1872, the bill was again called up by Mr. Hooper, for the purpose of offering an amendment in the nature of a substitute, and the bill, as amended, passed that day.—Yeas 110, nays 13.

Just previous to the passage of the bill Mr. McNeely, of the Coinage Committee, said:

"As a member of the Committee on Coinage, Weights and Measures, having carefully examined every section and line of this bill, and generally understanding the subject before us, I am satisfied that the bill ought to pass."—Page 3,883, volume 104.

The substitute reported by Mr. Hooper and passed by the House, so far as it refers to silver coinage, was identical with the bill previously reported from the Coinage Committee by him. It was also identical with the bill introduced by Mr. Kelley, with the single exception of the provision authorizing the coinage of a silver dollar weighing 384 grains. The bill of Mr. Kelley, so far as it related to the silver coinage, was identical with the bill which was prepared at the Treasury Department, and which had passed the Senate, excepting that the latter bill made the silver coin a legal tender for all sums less than $1, while the bill of Mr. Kelley made the silver coins a legal tender for $5 in any one payment.

The bill was again printed in the Senate on May 29, 1872, and referred to the Finance Committee. Senator Sherman, in reporting it back on December 16, 1872, said:

"This bill has, in substance, passed both Houses, except that the Senate bill enlarged and increased the salaries of the officers of the mint; it was passed by the Senate at the session of the last Congress, went to the House, and now somewhat modified has passed the House at this Congress, so that the bill has practically passed both Houses of Congress. The Senate Committee on Finance propose a modification of only a single section; but as this is not the same Congress that passed the bill in the Senate, I suppose it will have to go through the form of a full reading unless the Senate are willing to take it on the statement of the committee, the Senate already having debated it and passed it."—Page 203, volume 106, third session Forty-second Congress.

After further debate, on motion of Mr. Cole, the bill was printed in full with amendments.

On January 7, 1873, it was again reported with amendments, and again printed for the information of the Senate. It passed that body on January 17, 1873, after a discussion occupying nineteen columns of the *Congressional Globe.*

The bill was sent to the House, and on January 21, 1873, on motion of Mr. Hooper, it was again printed with amendments, and subsequently committees of conference were appointed, consisting of Messrs. Hooper, Houghton, and McNeely of the House, and Senators Sherman, Scott, and Bayard of the Senate. The reports of the committees of conference were agreed to, and the bill became a law on February 12, 1873, substantially as originally prepared at the Treasury.

The bill as prepared at the Treasury omitted the silver-dollar piece, and the report stated the fact of its omission three different times, and gave the reasons therefor. The silver-dollar piece was omitted from the bill as it first passed the Senate. It was also omitted from the bills reported by Mr. Kelley; but in the bills reported by Mr. Hooper a new silver dollar was proposed equal in weight (384 grains) to two of the half dollars then authorized.

The Senate substituted a trade dollar weighing 420 grains in place of the dollar of 384 grains, in accordance with the wishes of the dealers in bullion upon the Pacific coast, that being considered by them as the most advantageous weight for a coin to be used for shipment to China and Japan.

The weight of the subsidiary silver coin was increased about one-half per cent. in value, making the half dollar, quarter dollar, and dime, respectively, of the weight of 12½ grams, 6¼ grams, and 2½ grams, or precisely one-half, one-quarter, and one-tenth, respectively, of the weight of the French five-franc piece. All of said coins were made a legal tender in nominal value for any amount not exceeding $5 in any one payment. The bill was read in full in the Senate several times, and the record states on January 9, 1872, that it was read in the House. It was undoubtedly read at other times. The bill was printed separately eleven times, and twice in reports made by the deputy comptroller of the currency, thirteen times in all by order of Congress. It was considered at length by the Finance Committee of the Senate and the Coinage Committee of the House during five different sessions, and the debates upon the bill in the Senate occupied sixty-six columns of the *Globe*, and in the House seventy-eight columns of the *Globe.*

The Secretary of the Treasury called the special attention of Congress to the bill in his annual reports for 1870, 1871, and 1872. In his report of 1872, he says:

"In the last ten years the commercial value of silver has depreciated about 3 per cent. as compared with gold, and its use as a currency has been discontinued by Germany and by some other countries. The financial condition of the United States has prevented the use of silver as currency for more than ten years, and I am of opinion that upon grounds of public policy no attempt should be made to introduce it, but that the coinage should be limited to commercial purposes, and designed exclusively for commercial uses with other nations.

"The intrinsic value of a metallic currency should correspond to its commercial value, or metal should be used for the coinage of tokens redeemable by the government at their nominal value. As the depreciation of silver is likely to continue, it is impossible to issue coin redeemable in gold without ultimate loss to the government; for when the difference becomes considerable the holders will present the silver for redemption and leave it in the hands of the government to be disposed of subsequently at a loss.

"Therefore, in renewing the recommendations heretofore made for the passage of the mint bill, I suggest such alterations as *will prohibit the coinage of silver for circulation in this country*, but that authority be given for the coinage of a silver dollar that shall be as valuable as the Mexican dollar, and to be furnished at its actual cost."

As a final answer to the charge that the bill was passed surreptitiously, I append, first, a copy of the section in reference to the issue of silver coins as printed in the report of the Treasury Department, and as passed by the Senate; second, a copy of the section as reported by Mr. Kelley; third, a copy of the section as reported by Mr. Hooper; fourth, a copy of the section as finally passed by the Senate and agreed upon by the conference committee.

The following section was printed in the two reports of John Jay Knox, deputy comptroller of the currency, to Congress; also, in Senate bill 859, Forty-first Congress, second session, April 28, 1870; in Senate bill 859, December 19, 1870, and January 11, 1871, third session, Forty-first Congress, as reported by Mr. Sherman:

"SEC. 15. *And be it further enacted*, That of the silver coins, the weight of the half dollar, or piece of fifty cents, shall be 192 grains; and that of the quarter dollar and dime shall be, respectively, one-half and one-fifth of the weight of said half-dollars; that the silver coin issued in conformity with the above section shall be a legal tender in any one payment of debts for all sums less than $1."

The following section was printed in Senate bill 859, Forty-first Congress, third session, February 25, 1871; and House bill No. 5, Forty-second Congress, first session, March 9, 1871, as reported by Mr. Kelley:

"SEC. 15. *And be it further enacted*, That of the silver coins, the weight of the half dollar, or piece of fifty cents, shall be 192 grains; and the quarter dollar and dime shall be, respectively, one-half and one-fifth of the weight of said half dollar; which coins shall be a legal tender, at their denominational value, for any amount not exceeding $5 in any one payment."

The following section was printed in House bill No. 2,934, May 29, 1872; House bill No. 1,427, February 9, 1872, and February 13, 1872, Forty-second Congress, second session, as reported by Mr. Hooper:

"SEC. 16. That the silver coins of the United States shall be a dollar, a half dollar or fifty-cent piece, a quarter dollar or twenty-five-cent piece, and a dime or ten-cent piece; and the weight of the dollar shall be 384 grains; the half dollar, quarter dollar, and the dime shall be, respectively, one-half, one-quarter, and one-tenth of the weight of said dollar; which coins shall be a legal tender, at their denominational value, for any amount not exceeding $5 in any one payment."

The following section was printed in House bill No. 2,934, December 16, 1872, January 7, 1873, and January 21, 1873, Forty-second Congress, third session, as reported by Mr. Sherman:

"That the silver coins of the United States shall be a trade-dollar, a half dollar or fifty-cent piece, a quarter dollar or twenty-five-cent piece, a dime or ten-cent piece; and the weight of the trade-dollar shall be 420 grains troy; the weight of the half dollar shall be 12½ grains; the quarter dollar and the dime shall be, respectively, one-half and one-fifth of the weight of said half dollar; and said coins shall be a legal tender at their nominal value for any amount not exceeding $5 in any one payment."

The following section was contained in all of the different bills and the coinage act of 1873:

"SEC. 18. *And be it further enacted*, That no coins, either of gold, silver, or minor coinage, shall hereafter be issued from the mint other than those of the denominations, standards, and weights herein set forth."

Copies of the different bills may be obtained at the document-room of the Senate.

A HISTORY OF TUNNELING DURING THE THIRTY-FOUR CENTURIES SUCCEEDING THE REIGN OF RAMESES II.* — I.

TUNNELING BY THE ANCIENTS.

The perseverance that the ancients showed in excavating their rock tunnels is astonishing when we consider their means of excavation were limited to hand tools, wedging, etc., supplemented occasionally, perhaps, by the use of the "fire-setting" system of excavation, which simply consisted in heating the rock and suddenly cooling it with water, and so disintegrating it. Diodorus, in an account of mining operations in Ancient Egypt and Ethiopia, speaks of the fire-setting system being employed, and gives a frightful picture of the sufferings of the slaves and captives condemned to toil in the mines. Pliny also mentions the fire-setting system, and, according to Livy, Hannibal used it in crossing the Alps, when he is said to have cooled the rocks with vinegar after heating them.

This use of fire under ground, of course, gave a fearfully vitiated atmosphere. The only device of which we have any record as being used by the ancients to improve the ventilation, consisted in waving large sheets of cloth over the mouths of the shaft and slope-openings. These, acting as fans, agitated the air, and afforded some slight relief.

In the middle ages, the fire-setting system was employed both in warfare and in mining. At the present day, the "fire-setting" system is still used in the Rammelsberg at Goslar, at Felsobanya in Siebenburgen, and in some mining regions in Russia, Norway, and Sweden.†

Also, Professor H. S. Munroe tells us that the system is to-day in extensive use in Japan for driving long mining tunnels. In Europe, it seems now only to be applied in case of very hard rock, and where free ventilation is attainable, but rarely in mining sulphurous or arsenious ores, on account of the vapors generated by the partial roasting effected; though Lohneyss tells us, in his *Bericht vom Bergkwerck* (1617), that in those days the miners suffered greatly from the vapors; also, that in the mines of St. Georg, silver is actually said to have flowed in liquid form from the veins on account of the heat. Figs. 1 and 2 are from Agricola's *De Re Metallica*, Basel, 1556, and show the fire system as practiced in Germany at that time.

There has been an attempt lately made by Hugon,‡ at the Challenge Mines in France, to apply fire to rock excavation; he constructed a large furnace on wheels, so arranged that a strong draft should pass out at the front, and thus throw the flames directly against the rock face.

In the few localities where the old fire system is now used, it is chiefly applied to enlarging a drift or chamber in very hard rock, especially in cases where it is desired to bring down the roof; and the question has been mooted whether, in some exceptionally rare cases of large tunnels driven with a bottom heading in hard rock, requiring no timbering, the fire system might not profitably be used in enlarging; there would remain, however, the question—even supposing the system to be a practicable one—whether there would not be great risk of shattering, and so rendering dangerous to an uncertain depth, a roof which by ordinary driving would be perfectly safe.

It has been surmised that the use of the diamond for rock-boring and cutting was known to the ancients, and that M. Leschot's laurels are but leaves gathered from a twig springing from the root buried in far distant ages. By referring to ancient writers—Pliny, Italiana Vitori, Lapidarium of Marbodus—we find that diamonds formed an important adjunct to the "hewers of stone" as well as the lapidary. And it is thought by Eastern writers,* that diamond (shamer) pointed tools were used in the construction of Solomon's temple, where "there was neither hammer, nor axe, nor any tool of iron heard in the house while it was in building."

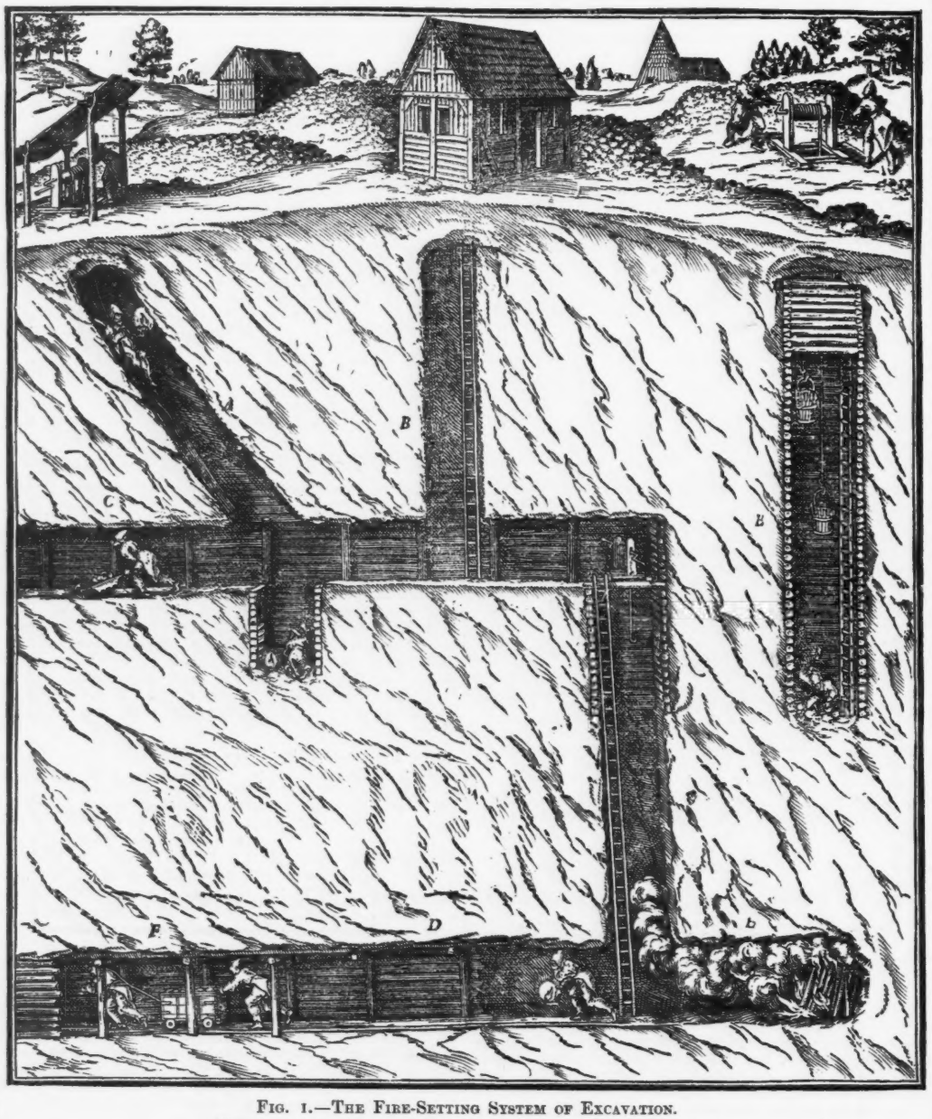


FIG. 1.—THE FIRE-SETTING SYSTEM OF EXCAVATION.
(From Agricola's *Bergwerck Buch* (3d ed. of *De Re Metallica*), Basel, 1621).

EGYPTIAN TUNNELING.

To go back to first principles, we must allow that the Egyptians, in this as in their many other arts, led the world by many centuries. How the wonderful subterranean constructions of both ancient Egypt and India were ever carried through, we would now be at a loss to conceive, did we not remember that, in both, the mass of the people were but slaves, subjected to the despotic will of the few. Moreover, the strong religious fanaticism of the masses, and the unlimited power possessed by their monarchs, enabled the latter to construct works, still existing in fact or record, marvelous in their magnitude and grandeur; the grottoes of Samoun; and of the crocodiles in upper Egypt,† not far from Monfalout; the caverns of Thebes, amounting in the aggregate to over fifteen leagues in length; the tombs of Memphis, situated, many of them, more than twenty-five yards below the surface of the ground; and the catacombs of Alexandria.

Both in Egypt proper and in Nubia, the Egyptians were in the habit of excavating monuments from the living rock.‡ but with this curious distinction: with scarcely an exception, all the excavations in Egypt proper are tombs, and no important example of a rock-cut temple has yet been discovered; in Nubia, on the other hand, all the excavations are temples, and no tombs of importance are to be found anywhere. Like all rock-cut temples, these Nubian ones are copies of structural buildings, only more or less modified to suit the exigencies of their situation — a situation that did not admit of very great development inside, as light and air could only be introduced from the one opening of the doorway.

The principal examples of this class of monuments are the two at Ipsamboul, the largest of which is the finest of its class known to exist anywhere. Its total depth from the face of the rock is 150 feet, divided into two large halls and three cells, the whole connected by passages. Externally, the facade is about 100 feet high, and is adorned by four of the most magnificent colossi in Egypt, each 70 feet in height, cut out of the solid rock, and representing King Rameses II., who caused the excavation to be made.

Besides the above, there is a very beautiful though small example at Kalabsche, likewise belonging to the age of Rameses II.; there are, moreover, smaller temples at Derri and Balagne. At Essabua, Girsheh, and Dandour, the cells of the temple have been excavated from the rock, but their courts and propylons are structural buildings added in front. This last arrangement is found also as a characteristic of the temples of Gibel Barkal, in the kingdom of Meroe, showing how far the rock-cutting practice prevailed in the upper valley of the Nile.

As all these temples are contemporary with the great structures in Egypt, it seems strange that the eternity of a rock-cut example did not recommend this form of temple to the attention of the Egyptians themselves. But, with the exception of a small grotto called the Speos Artemidos, near Beni Hassan, and two small caves at Silsilis, the Egyptians seem never to have attempted it, trusting apparently to the solidity of their masonic structures for that eternity of duration to which they aspired. It is said by Fergusson that every circumstance seems to point to the fact, that, if there was any connection between

* Extracts from advance proofs of *A Treatise on Tunneling, Explosive Compounds, and Rock Drills*, by Henry S. Drinker, Mining and Civil Engineer. Published by John Wiley & Sons, New York.

† See L. Simonin's *Underground Life*, translated by H. W. Bristow, p. 410.

‡ *Erganzungsband zum Leitfaden der Bergbaukunde*, Von Lottner Serlo, p. 39. Berlin, 1782.

* *Engineering*, May 5, 1876, p. 377.

† *Les Galeries souterraines*, p. 3, Max Helene.

‡ Fergusson's *History of Architecture*, p. 112.

Africa and India, it was with the provinces in the upper part of the valley of the Nile, and not with Egypt proper. This distinction is of great interest, for now, on turning to the history of rock excavation in India, we shall see that the rock-cut temples there are the finest examples of subterranean excavation that the world has ever known.

LECTURES ON MINING.—No. LX.

By Prof. W. W. Smyth, M. A., F. R. S., Royal School of Mines, London.

DRESSING APPARATUS.

We have a further class of dressing apparatus to examine—a small group in which the apparatus is movable, but in which the water and finely divided material otherwise occupy the same position as in the class with fixed tables, which we looked at in the last lecture. The introduction to this class is an apparatus of very simple character—a movable tray, worked by hand, which is used so largely in gold districts, etc., the operation being known as "vanning." Very commonly it is a circular dish or pan, large numbers of circular dishes made of tinned sheet-iron being supplied to some of the gold districts. A certain quantity of the material, mixed with water, is placed on this dish, care being taken that no large stones are amongst it, which might tend to scratch or injure the carefully prepared surface, which would make it work wrongly. A partly rotatory movement is then given to it, accompanied by a series of shakings, till it is seen that the material has become a good deal concentrated, and that a good deal of the waste can be scraped off, fresh water is added, and the process repeated, till the tin or gold is left free from the greater part of the rubbish at the bottom of the pan.

By this method, too, different varieties of tin-stuff may be tested, either as it comes from the mine or from the stamps, or to ascertain the degree of concentration during the dressing processes. In our own districts a vanning shovel is used, instead of a pan without a handle. In some of the colonial districts it is known as a prospecting shovel, or in German mines *Sichertroz*. The form of the dish is variously modified in different districts: in some places it is circular, with a flat bottom, usually of wood, but sometimes of sheet-iron; in Brazilian mines it is of a conical form in the center; in Mexico it is somewhat similar, but on a smaller scale, and made of horn, and is used also for amalgamating; in other districts, as in the East of Europe, it has an oblong form, and is of wood.

This vanning shovel, or pan, was in use in very early times, and a picture in Agricola's book illustrates its use. In one case it will be seen that it is held in the stream while it is worked, probably in order to enable a larger quantity of material to be worked at the same time. This leads us to some of the varieties of apparatus in which an inclined plane is suspended, and while a stream of water flows over it with the material it is subjected to a succession of shocks. These suspended tables came into use especially in Hungary and Transylvania, but have also been used under various forms in Saxony and Germany, and are still largely used. A table is suspended by four chains, the two longer at one end being attached to the barrel of a small windlass, by which they can be raised, and the inclination of the table varied. The two shorter ones at the upper end of the table do not hang vertically, but are inclined, and can be adjusted so as to regulate the tension, and therefore the strength of the shocks. The method of working is to place cams or other arrangement on an axis, so as to push the table a certain distance forward, and then release it, so that it will fall back with a smart blow against a block of wood. This is called a *Stossherd*, or percussion frame. The framework of the apparatus is made very strongly; the frame itself is made of transverse boards, very smoothly joined. When the blow is struck solid—that is, when the table falls against a solid block (a small block being fixed at the upper end of the table to receive the direct blow)—from 30 to 48 blows per minute may be given. In the Hungarian districts another method is adopted, and instead of falling against a solid block it falls against an elastic board stretched between two blocks: 10 or 12 blows only per minute are given, but there is a succession of smaller blows due to the rebound; and this method, it is asserted, not only involves less power, but does the work better. The ore and water are mixed in a separate trunking box, and may if necessary be diluted with clear water as it flows down the headboard to be distributed to the table. As most of the material will tend to be deposited at the upper end, the slope of the bed in that part will gradually become greater, and might lead to loss from the too great steepness were the inclination not suitably altered from time to time by raising the two long chains. This apparatus has worked well when it has been carefully attended, the points to be attended to being principally the angle of inclination, the quantity of water, the number of blows per minute, and the amount of tension given to the upper chains, all these points giving great latitude for adaptation. A few years ago Mr. Rittinger, seeing that the great objection to this apparatus was that you could only load it to a certain small depth, and then had to stop the work in order to take off the deposit, proposed another arrangement of suspended frame, which he termed the "continuous percussion frame." In this the suspended table is drawn out of its position sideways, and allowed to fall against a block, so that there is a tendency to throw the stuff which is passing down it out of a straight line parallel to the axis— towards the side on which the block stands. The material is mixed in a trunking box, and beside that, on the side to which the material on the board is thrown, are several small head-boards for distributing clear water, so that as the material is thrown to the side it meets with the clear water, and is carried down. Suppose we have mixed ore, among which gold, galena, etc., are present, when the blow is given the material of greatest specific gravity will be thrown out farthest, the dirty water will more or less keep on in a straight line. There will thus be a more or less efficient separation, and the different classes of material will pass down in curves to separate portions of the end of the table, where they will be received in separate boxes. And this division will be made more completely than one would imagine in the space of 10 or 12 feet, especially if the ore be free from argillaceous slime. The chief point to notice is that the action is always going forward, there is no stoppage of the material, but it is constantly being fed in at one end and delivered into the different divisions at the other. This apparatus has rendered good service in some of the continental districts, and the lecturer would like to see it more frequently in this country.

FIG. 2.—THE FIRE-SETTING SYSTEM OF EXCAVATION.

(From Agricola's *De Re Metallica*, 1st ed., Basel, 1556.)

Another modification of the movable table took its rise in the Harz some years ago, and has met with some modification at the hands of Rittinger and the Austrian dressers. Instead of the table being rectangular, it is transformed, like the buddle, into a circular form, and the material is started from the center towards the circumference, usually by means of some very simple annular trough. At a certain time in the revolution the material is let loose to flow as mere dirty water over the surface, and clear water is introduced for the purpose of aiding the division; and then on coming to a certain portion of the revolution (which is a very slow one) it receives additional quantities of water, until it has passed sufficiently far as to be spread, and you are prepared to run it off as tails, middles, and heads into troughs round the circumference. The whole table is moved round at the rate of one revolution in 8, 10, or 15 minutes, it being intended that in the course of one revolution the stuff should be entirely cleaned. According to a series of most careful experiments carried out in the Harz, it appears that the material can be cleaned and rendered marketable in something like one-sixth or one-seventh of the time which was required with the ordinary methods by the long fixed tables. It is a rather delicate operation, and if the water passes from the table to the waste stream it is necessary to test it from time to time, to see that nothing valuable is being lost. The most striking modification is that of having a concave frame instead of a convex one, just as in the case of the buddle, but we have not yet results of sufficient importance to enable us to dwell upon that.

We come next to the apparatus for finishing. The ore is carried from the machines described above to what is termed the kieve, a barrel or open tub, 3 to 3½ feet high, and somewhat under 3 feet diameter; and a quantity of material in its nearly clean state is thrown in, and agitated along with water by means of a shovel working it up, till it is brought into complete suspension. The shovel is then withdrawn, and a boy is set to strike the kieve with a bar of iron so many times per minute, and the consequence will be the settlement of the material according to its character, the most valuable being at the bottom, and perhaps in a fit state to be sent to the smelter. In the North of England a dolly-tub arrangement is employed, rotatory motion being given to a set of vanes, arranged on a vertical axis, to effect the agitation. The material is allowed to subside, and then the water is drawn off, or allowed to flow away through peg-holes in the sides of the kieve, and material taken out in strata as before.

We must now pass back to another part of the operations which we left when speaking of the comminution of the mixed ores sent to the crusher. In the ap-

paratus already described we have been dealing with the ore of the size of small sand down to the finest slime; we come now to the pieces of ore which may vary in size from a walnut down to the size of peas, in which the sieve will do us good service. In the lead mines of Flintshire, where the material associated with the lead ore is little else than clay or calcspar, there is very little dressing required beyond breaking down the material by hand, then placing it in a sieve, and moving the sieve up and down in water, in such a way that the particles are lifted by the water, the heaviest then falling first. The lighter matter at the top will consist of the spar, and may perhaps be thrown away at once: the ore will then be removed, a bed of it being commonly left in the bottom of the sieve. A small rotatory movement is given at the same time as the lifting movement, in order to allow the small ore to fall through. The lecturer did not know that there was any more thorough mode of effecting the separation than that by the sieve worked by hand, but large quantities of material cannot be got through unless a large number of workmen are employed. To get the larger quantities it has been usual in our copper and lead mines to employ what is called a brake sieve, which is a rectangular sieve made of wires or of punched plate. The sieve is attached to a frame, which is moved by a long lever up and down; the whole is called a jigging sieve, and the operation "jigging." The sieve is as much as 4 feet long by 1½ feet wide, and the principle is the same as that of the simple sieve. It is moved up and down in water with a peculiar jerking motion for a time, then raised out of the water, and the layers of material removed; the top skimpings are first taken off, then the next deposit may have to be separated into two or three, and set aside for further treatment, then there is the bottom richer ore, a portion of which must be left, for the bed. That which falls through into the box or hutch is, generally speaking, rich ore.

Many years ago it was suggested by Mr. Petherick to replace this jigging action, by which that sieve is moved up and down, by making the water strike against the sieve, and the arrangement was patented as Petherick's Patent Separator. Four circular sieves were placed in as many openings in the top of a large box, and in the middle was another hole in which a small piston was moved up and down with a stroke of 2 or 3 inches. The box being filled with water the movement of the piston caused the water to strike against the sieves. The separation was effected undoubtedly in an admirable manner, but somehow, owing to the great changes which have come over the whole spirit of copper mining in this country, especially the dressing of the ores to less high percentage, this principle has been carried no further in England. But this jigging process has been carried much farther on the Continent; one modification is that where you have a square piston moved by an eccentric to strike the water, and the opening between the piston and the sieve regulated by means of a door. But there is one point about all these machines which Rittinger has especially insisted on—that you do not get continuous working, and accordingly he has introduced a machine on this principle which works continuously. The chamber in which the piston works communicates with a reservoir of water on one side of it by means of a set of valves opening towards the former chamber; on the other side, there is free communication with the chamber, at the top of which is the sieve. The downward movement of the piston closes the valves and drives the water into the sieve chamber. The sieve is placed slightly inclined, so that when the particles are lifted the heavier ones will have a tendency to run to the lowest part of the sieve. As they pass down the inclined sieve little horizontal tongues at the edge divide the different layers and conduct them into different receptacles, and this goes on continuously. A similar machine has been used for washing coal, only in this case it is the lighter portion which is the most valuable, while with metallic ores it is the heavier portion which is most carefully attended to.

In conclusion, the lecturer said that he had looked at these different classes of apparatus separately, because it would be difficult to regard them together satisfactorily without taking the case of some particular mine. The material as it comes from the mine will be divided into classes, one of which is prills, and may require no further treatment, another class has to go to the stamps, and a third to the crusher. From each of these classes there streams forth a whole series of operations according to the circumstances of the case. The lecturer concluded the course by reiterating what he had so frequently expressed—the necessity for personal practical experience on the part of his hearers, in addition to theoretical knowledge, if they would deal successfully with everything relating to the management of mining operations.—*London Mining Journal.*

PROPOSED FORM OF AGREEMENT FOR THE GOVERNMENT OF THE COAL TRADE.

That for the regulation and management of the anthracite coal trade during the years 1878, 1879, and 1880, a Board of Control shall be established, composed of one representative of each of the following companies:

1. The Philadelphia & Reading Railroad Company.
2. The Lehigh Valley Railroad Company.
3. The Central Railroad of New Jersey.
4. The Delaware & Hudson Canal Company.
5. The Delaware, Lackawanna & Western Railroad Company.
6. The Pennsylvania Coal Company.
7. The Pennsylvania Railroad Company.

Which board shall meet monthly, or oftener if necessary, and shall elect one person as president and one person as secretary and treasurer.

At all meetings of said board each representative shall cast a number of votes equal to the percentage which his company represents of the entire production of coal as hereinafter allotted, so that the full vote of all the members shall be 100. For the years 1878, 1879, and 1880 the said Board of Control shall have full power and authority to carry out and enforce the provisions of the following agreement, viz.:

First. The entire production of anthracite coal in Pennsylvania shall be apportioned and allotted to the above-named seven companies in the following proportions, viz:

To the	Per cent.
Philadelphia & Reading Railroad Company	—
Lehigh Valley Railroad Company	—
Central Railroad of New Jersey, including Lehigh and Wilkesbarre and Lehigh Navigation Company's coals	—
Delaware & Hudson Canal Company	—
Delaware, Lackawanna & Western	—
Pennsylvania Coal Company	—
Pennsylvania Railroad Company	—

[Blank tons to be filled as agreed upon.]

It being understood that all qualities and sizes of anthracite coal, including buckwheat and pea coal, shall be included, but that coal dirt and culm shall not be included; and also that all coal used by any of the companies for raising steam and heating at coal mines and breakers shall not be included, but that all coal used by any of the companies for any other purposes shall be included in the allotment. It being provided, however, that any anthracite coal shipped and consigned to the Pacific coast of the United States, or to any foreign country other than the Dominion of Canada or the West India Islands, may be deducted from the amount otherwise chargeable to the company shipping it, and shall not be taken into account as part of the quota of said company or as part of the aggregate shipments to be apportioned as above, but in all cases a proper statement of all such foreign shipments, with name of vessel carrying the cargo, date and amount of bill of lading, and port of consignment, shall be made to the Board of Control from time to time, and before the amount of such shipment can be deducted as aforesaid. In all cases except where expressly provided otherwise, that company of the above seven upon whose line the coal either leaves the breaker, or whose line the coal first reaches in transit, shall be charged with and become responsible for such coal, and each company shall be considered in this connection as the owner and responsible for any of the branch or auxiliary lines, whether of railroad or canal, which may be owned, controlled or operated by it, or which may belong to its system of railways or canals.

Second. That at the commencement of each year the entire production for said year shall be assumed at some definite quantity, which shall be divided among the seven companies in the proportions above named, and the yearly quota of each company thus ascertained shall be again divided into monthly quantities representing the amount to be produced by each company and the district represented by it, and for which it is responsible. It being provided that the total quantity to be produced in any month may be increased or curtailed by the Board of Control according to the demands of the market, but that any increase or diminution in the aggregate monthly production shall be added to or taken from the monthly amounts of the several companies in the proportion of their respective yearly quotas.

Third. That each company shall pay weekly to the credit of the Board of Control, into such bank or other depository as may be designated by said Board, the sum of forty cents for every ton of coal production chargeable against said company, as a fund out of which all penalties incurred by said company shall be payable: provided, however, that there shall be paid back to each company at the end of any month in which it exists, any accumulations of said fund so paid by it in excess of penalties incurred; provided, however, that the amount always remaining to the credit of such company throughout each year shall be not less than $15,000 for each one per cent. of the yearly production embraced in the annual quota of such company; and provided further, that at the end of each year, and after the final settlement of the business of such year and the payment of all penalties, if any, incurred, the total sums then remaining to the credit of the several companies shall be repaid to them in cash. All payments out of the said fund, whether for penalties or for repayment of original contributor, shall be made by check drawn by the order of the Board of Control, signed by its treasurer and countersigned by its president.

Fourth. The business year shall begin with the 1st of January and close with the 31st of December in each year, and each company shall furnish full weekly and monthly statements of tonnages with such detail as shall be required from time to time by the Board of Control.

Fifth. That if, at the end of any month, any company shall have exceeded its quota for such month, it shall forthwith pay at the rate of $1.25 per ton for each ton of such excess, such payments to be made out of the fund to the credit of such company, by checks, as above provided for account of such company or companies as may have fallen behind their quota for the said month; and if, from any cause, the fund so to the credit of such debtor company shall have been exhausted, the said company shall forthwith make up in cash the amount of the deficiency. It being, however, expressly provided that if in consequence of a refusal to produce, or if on account of a strike or lockout, riot or freshet, any company or companies are unable to produce their quota, and thus the tonnage of the remaining companies or company, as the case may be, may be greatly out of its proper proportion of the aggregate, such company so exceeding its proportion shall not be called upon to pay any penalty due to any excess of quota, except upon such amount as is in excess of the actual number of tons which, at the commencement of the year, had been allotted to such company as its monthly tonnage for the month in which such excess occurs.

Sixth. That the entire tonnage of coal as aforesaid shall be divided into two heads, viz., competitive and local. That competitive tonnage shall include all coal except that to the foreign countries and the Pacific coast as above named, which reaches the Hudson River or New York bay, or which passes out of the Capes of the Delaware or through the Delaware and Raritan Canal, and that the minimum prices for all such competitive tonnage shall be established monthly by the Board of Control, beginning in each year with the month of April and gradually advancing in price until winter, it being understood that no decrease of price shall be made after the month of December until the following April; provided, however, that for manufacturers' season contracts may be taken at fixed prices for the year, to be established by the Board of Control at the beginning of each season. For sales of competitive tonnage no higher commission to be paid to agents than ten cents per ton, but upon all local tonnage each company to have the right to establish such prices as it pleases.

Seventh. The Board of Control shall have no power to order absolute suspensions of mining except in the months of December, January, February and March, and then only by a vote of at least sixty-five out of the hundred.

If the above plan is approved, it is recommended that entire suspension of mining take place from December 24, 1877, to January 12, 1878, inclusive; from January 27 to February 16, inclusive; and from March 4 to March 23, inclusive. —*Philadelphia Ledger.*

HYDRAULIC MINING IN CALIFORNIA.

By Aug. J. Bowie, Jr., A.B., M. E.

(*Concluded from page* 204.)

The tables on the two following pages, giving analyzed accounts of the claims of the La Grange Hydraulic Mining Company, should have appeared after the text (on page 204 of the ENGINEERING AND MINING JOURNAL) which says erroneously "See Tables I., II., and III.," and the paragraph commencing "*A resume of the entire work*" should follow after Table VIII. The Tables marked IV. and V. should read IX. and X.

NOTE.—The surveys made by J. L. Jernegan, M.E., of the work done on the lower end of the French Hill Claim in the year 1876 showed that 252,614 cubic yards of gravel were washed, yielding $35,012.33 gold, which is equal to 13 8 cents per cubic yard of material moved.

The value of the inch water in these tables is 2,159·14 cubic feet per inch in 24 hours.

MOUSSERON BRAZIER.—Abbe Moigno gives a detailed and interesting description of a brazier, invented by M. Mousseron (20 Boulevard des Filles-du-Calvaire, Paris), which may be used in close apartments without vitiating the air. Through the center of the fire box passes a tube pierced with holes, which admits a copious supply of air to the fuel, producing a vivid combustion, so that there is no production of carbonic oxide. The carbonic acid is absorbed by the vapor of water from a vessel near the top of the brazier, and escapes into the room in a harmless form. Numerous extracts are given from a report of M. Triboulet to the *Societe Nationale des Architectes de France*, and the invention is pronounced "the easiest, the most universally applicable, the most economical and the most agreeable of all the known methods of warming.—*Franklin Inst. Jour.*

TABLE IV.— THE FRENCH HILL CLAIM. TABULAR STATEMENT SHOWING THE AMOUNT OF WATER USED AND CUBIC YARDS OF GRAVEL MOVED; COSTS AND RECEIPTS OF HYDRAULIC WASHING FROM MAY 30, 1874, TO OCTOBER 12 1876.

Year	Run commenced.	Months.	End of Run.	Washings. Days.	Washings. Hours.	Amount of Water used in 24 hours, M.I.	Grade of Sluices.	Height of Banks.	Water Pressure.	Cubic Yards Gravel Washed.	Cubic Yards Gravel Moved per inch of Water.	Average Yield. Per inch water.	Average Yield. Per cubic yard.	Average Cost. Water per yard gravel moved.	Average Cost. Material, etc., per cubic yard.	Total Cost. Melting and Refining.	Total Cost. Labor.	Total Cost. Blocks and Lumber.	Total Cost. Water.	Total Cost. Material.	Grand Total.	Relative Cost per Cubic Yard. Labor.	Relative Cost per Cubic Yard. Blocks and Lumber.	Relative Cost per Cubic Yard. Material.	Relative Cost per Cubic Yard. Water.	Relative Cost per Cubic Yard. Melting and Refining.	Total Cost.	Bullion Yield. Amalgam. Pounds Avoirdupois	Bullion Yield. Weight before melting. Pounds Avoirdupois.	Bullion Yield. Fineness. Gold.	Bullion Yield. Fineness. Silver.	Bullion Yield. Value of Gold.	Bullion Yield. Value of Silver.	Bullion Yield. Total Amount of Bullion produced.
18 74	30	May																																
		June																																
		July	6	43	21	52,675				32,822	0·62	$0 25	$0 40			$16 68	$2,699 50		$589 96		$3,306 14	·082			$0 017		$0 109	121·00	48·00	·921		$13,304 29	$39 20	$13,343 58
	15	August																																
		September																																
	3	October	1	38	21	46,675				52,316	1·01	13	12			31 36	1,880 06		522 76		2,434 18	·035			009		054	58·00	23·00	·936	·055	6,411 13	15 49	6,426 62
	27	November	26	44	23	53,975				57,600	1·06	13	12			7 32	2,293 43		604 52		2,905 27	·039			010		059	70·00	25·75	·934	·051	7,220 39	19 99	7,240 38
		December																																
1875		January																																
	23	February	21	69	9	72,565						16				44 02	3,427 67		812 72		4,284 41						117·25	43·31	·938	·054	12,050 93	29 07	12,080 00
		March																																
		April																		$3757 29	3,757 29													
	29	May	28	60	5	72,275						14				35 71	4,486 14		809 48		5,331 33						103·50	37·25	·921	·056	10,366 59	30 49	10,397 08
		June																																
	15	July	14	22	12	27,000						10				10 33	1,785 26		302 40		2,097 99						30·00	10·50	·928	·055	2,891 58	8 10	2,899 68
		August												·0104	·0526			$2900 00			2,900 00		·0·0042	·0·0057		·0·0004								
	9	September	8	41	12	49,800						15				24 69	2,209 71		557 76		2,792 16						73·75	26·68	·951	·047	7,545 31	15 80	7,561 11
	14	October	13	12	3	14,150				490,230	1·14	12	12			10 20	1,309 53		158 48		1,478 21	·041			008		059	17·31	6·44	·941	·052	1,818 34	5 05	1,823 39
		November																																
	3	December	2	22	2	26,500						16				19 47	1,292 54		296 80		1,508 81						46·00	15·44	·910	·057	4,462 84	20 49	4,483 33
1876		January	31	45	17	54,850						11				32 89	2,063 99		614 32		2,711 20						63·12	22·68	·940	·050	6,121 73	15 00	6,136 73
	1	February																																
		March																																
	25	April	24	73	15	87,750						11				50 00	2,863 74		982 80		3,896 54						103·25	36·44	·936	·052	10,151 95	27 00	10,178 95
		May																																
	8	June	7	20	13	24,680						13				13 70	1,099 91		276 41		1,502 41						31·75	12·09	·936	·054	3,325 67	8 91	3,334 58
		July																																
		August																																
		September																																
		October	12	34	21	41,850				44,000	1·05	10	09			16 59	1,164 58		468 72		1,649 89	·026			010		046	42·00	15·25	·926	·059	4,269 76	11 00	4,280 76
				521	7	624,745	4 ft. to 16 ft.: sometimes less. Sluices 4 ft. wide 30 in. side.		50 to 70 feet; number of pipes, 3; nozzles, 4, 5 and 6 in.	676,968	1·08	$0 14	$0 13	$0 0104	$0 0526	$312 96	$28,576 06	$2,900_00	$6997 13	$3,869 68	$42,655 83	·042	$0·0042	$0·0057	$0 0104	$0·0004	$0 063	878 93	322·83			$89,940 51	245 68	$90 186 19

TABLE V.—THE LIGHT CLAIM, PATRICKSVILLE. TABULAR STATEMENT SHOWING AMOUNT OF WATER USED AND CUBIC YARDS OF GRAVEL MOVED; COST AND RECEIPTS OF HYDRAULIC WASHING FROM FEBRUARY 12, 1875, TO SEPTEMBER 26, 1876.

Year.	Run commenced.	Months.	End of Run.	Washings. Days.	Washings. Hours.	Amount of Water used in 24 hours, M.I.	Grade of Sluices.	Height of Banks.	Water Pressure.	Cubic Yards Gravel Washed.	Cubic Yards Gravel Moved per inch of Water.	Average Yield. Per inch water.	Average Yield. Per cubic yard.	Average Cost. Water per yard gravel moved.	Average Cost. Material, etc., per cubic yard.	Total Cost. Melting and Refining.	Total Cost. Labor.	Total Cost. Blocks and Lumber.	Total Cost. Water.	Total Cost. Material.	Grand Total.	Relaive Cost per Cubic Yard. Labor.	Relaive Cost per Cubic Yard. Blocks and Lumber.	Relaive Cost per Cubic Yard. Material.	Relaive Cost per Cubic Yard. Water.	Relaive Cost per Cubic Yard. Melting and Refining.	Total Cost.	Bullion Yield. Amalga Pounds Avoirdupois.	Bullion Yield. Weight before melting. Pounds Avoirdupois.	Bullion Yield. Fineness. Gold.	Bullion Yield. Fineness. Silver.	Bullion Yield. Value of Gold.	Bullion Yield. Value of Silver.	Bullion Yield. Total Amount of Bullion produced.
1875	12	February																																
		March																																
	23	April	22	46	21	42,198						$0 12				$18 26	$1,928 74		$472 62		$2,419 62						51·00	18·15	·935	·052	$5,115 15	11·13	$5,126 28
		May																																
	4	June	3	30	4	27,152						10				7 08	1,187 32		304 10		1,498 50						27·25	10·60	·950		2,926 47	6·65	2,933 12
	16	July	15	32	12	29,250				453.038	2·36	10				10 33	1,339 27		327 60		1,678 70	$0 018	$0 008	$0 0017	$0 004		$0 035	32·00	11·20	·928	·055	3,084 63	·26	3,092 89
		August											$0 05							956 08	956 08													
	11	September	10	49	18	44,784						13				24 67	1,761 69		501 58	$956 08	2,287 96						59·00	21·35	·951	·047	6,035 55	15·00	6,050 55
	15	October	14	24	14	22,132						17				10 20	987 52		247 88		1,245 60						35·81	13·33	·941	·052	3,765 64	8·55	3,774 19
		November																																
	2	December	1	29	3	25,214						10		·0·006	·0·0318	17 10	1,233 96	$5800 00	293 60		1,544 66					·0·0003		31·00	10·41	·942	·054	2,760 89	10·05	2,770 94
1876		January																			5,800 00														
	7	February	6	44	4	49,688				84,220	1·69	14	08			32 88	1,925 36		556 50		2,514 74	·022	0084	0017	006		038	72·53	26·06	·940	·050	7,426 10	18·81	7,444 91
		March																																
	26	April	25	70	8	79,126				82.680	1·04	12	12			50 00	2,459 86		886 21		3,396 07	·029	0084	0005	010		048	106·25	36·79	·936	·052	10,249 70	27·00	10,276 70
		May																		76 36	76 36													
		June																																
		July																																
		August																																
		September	26	48	13	54,611				63,306	1·15	07	06			16 63	1,917 76		611 64		2,546 03	·030	0084	0005	009		048	39·50	15·00	·880	·064	3,963 41	11·65	3,975 07
				373	4	375,155	4 ft. to 16 ft. Sluices 4 ft. wide 30 in. side.		60 feet; 2 to 60 feet, 27 to 60 feet.	683,244	1·82	$0 12	$0 066	$0·0062	$0·0318	$187 17	$14,741 48	$ 5 ,	$4201 73	$1,032 44	$25,962 82	$0 022	$0 008	$0 0015	$0 006	$0 0003	$0 038	454·34	162·89			$42,366 65	107·06	$45,444 65

TABLE VI.—THE CHESNAU CLAIM. TABULAR STATEMENT SHOWING AMOUNT OF WATER USED AND CUBIC YARDS OF GRAVEL MOVED; COST AND RECEIPTS OF HYDRAULIC WASHING FROM JUNE 1, 1874, TO OCTOBER 3, 1876.

Year.	Run Commenced.	Months.	End of Run.	Washings. Days.	Washings. Hours.	Amount of Water used in 24 hours. M. I.	Grade of Sluices.	Height of Banks.	Water Pressure.	Cubic Yards Gravel Washed.	Cu Yds Gravel Moved per inch of Water.	Average Yield. Per Inch Water.	Average Yield. Per Cubic Yard.	Average Cost. Water per Yard Gravel Moved.	Average Cost. Material, etc., per Cubic Yard.	Total Cost. Melting and Refining.	Total Cost. Labor.	Total Cost. Blocks and Lumber.	Total Cost. Water.	Total Cost. Material.	Grand Total.	Relative Cost per Cubic Yard. Labor.	Relative Cost per Cubic Yard. Blocks and Lumber.	Relative Cost per Cubic Yard. Material.	Relative Cost per Cubic Yard. Water.	Relative Cost per Cubic Yard. Melting and Refining.	Total Cost.	Bullion Yield. Amalgam. Pounds Av'd'ps.	Bullion Yield. Weight before Melting. Pounds Avoirdupois.	Bullion Yield. Fineness. Gold.	Bullion Yield. Fineness. Silver.	Bullion Yield. Value of Gold.	Bullion Yield. Value of Silver.	Bullion Yield. Total Amount of Bullion Produced.
1874	1	June																																
	4	July		3	14 11	8,675				24,395	2 81	$0 45	$0 16			$22 23	$711 36		$97 16		$830 75	$0 028			$0 004		$0 043	35 00	14 00	943	947	$3,958 31	$9 03	$3,967 34
	17	August		15	31 23	19,175				30,346	1 58	23	14			5 64	1,111 25		214 76		1,331 65	036			008		025	41 00	15 75	944		4,506 97	6 11	4,513 08
		September		28	34 21	21,345				30,118	1 41	25	18			31 36	1,050 87		239 06		1,321 29	034			007		052	52 25	19 73	936	955	5,497 39	15 49	5,512 88
	2	October																																
	24	November		23	43 2	23,850				55,413	2 14	23	11			7 32	1,342 87		289 52	$1471 19	1,639 71	024			0 0076	005		040	63 75	21 88	934	951	6,134 53	19 09	6,153 62
		December																			1,471 19													
1875		January																																
		February		19	72 16	43,920				50,800	1 15	33	28	$0 008	$0 0497	44 02	2,419 87	$1217 97	491 91		2,955 80	047	0 0042		009	0 0005	067	142 00	52 45	945	951	14,585 74	43 65	14,629 39
					Claim	Closed.															1,217 97													
		March																																
		April																																
1876	1	May																																
	6	June		5	20 17	23,425				71,810	1 18	14	13			13 70	1,178 30		262 36		1,454 36	042			0 0031	009		055	31 25	11 90	936	954	3,273 29	8 88	3,282 17
		July																																
	6	August		5	36 14	37,230						17				27 64	1,881 52		416 97	$304 56	2,326 13							63 00	24 50	895	968	6,544 73	20 58	6,565 31
		September																			304 56													
		October		3	24 22	27,390				22,050	0 80	11	14			16 60	746 93		306 77		1,070 30	033				013		050	31 00	11 25	929	959	3,147 36	10 58	3,157 94
				279	6	207,010				284,932	1 37	$0 23	$0 16	$0 0082	$0 0497	$168 51	$10,442 97	$1,217 97	$2318 51	$1,775 75	$15,923 71	$0 036	$0 0042	$0 0062	$0 008	$0 0005	$0 055	459 25	171 46			$47,648 32	$133 41	$47,781 73

TABLE VII.—THE JOHNSON CLAIM. TABULAR STATEMENT SHOWING AMOUNT OF WATER USED AND CUBIC YARDS OF GRAVEL MOVED; COST AND RECEIPTS OF HYDRAULIC WASHING FROM MARCH 1, 1875, TO DECEMBER 16, 1875.

Year.	Run Commenced.	Months.	End of Run.	Washings. Days.	Washings. Hours.	Amount of Water used in 24 hours. M. I.	Grade of Sluices.	Height of Banks.	Water Pressure.	Cubic Yards Gravel Washed.	Cu Yds Gravel Moved per inch of Water.	Average Yield. Per Inch Water.	Average Yield. Per Cubic Yard.	Average Cost. Water per Yard Gravel Moved.	Average Cost. Material, etc., per Cubic Yard.	Total Cost. Melting and Refining.	Total Cost. Labor.	Total Cost. Blocks and Lumber.	Total Cost. Water.	Total Cost. Material.	Grand Total.	Relative Cost per Cubic Yard. Labor.	Relative Cost per Cubic Yard. Blocks and Lumber.	Relative Cost per Cubic Yard. Material.	Relative Cost per Cubic Yard. Water.	Relative Cost per Cubic Yard. Melting and Redming.	Total Cost.	Bullion Yield. Amalgam. Pounds Av'd'ps.	Bullion Yield. Weight before Melting. Pounds Avoirdupois.	Bullion Yield. Fineness. Gold.	Bullion Yield. Fineness. Silver.	Bullion Yield. Value of Gold.	Bullion Yield. Value of Silver.	Bullion Yield. Total Amount of Bullion Produced.
1875	1	March																																
	22	April		21	22 13	18,040						$0 11				$18 26	$1,715 25		$202 05		$1,935 56							20 25	7 20	935	952	$2,026 26	$7 30	$2,033 56
		May																																
	3	June		2	27 5	21,770						06				7 08	558 24		243 82		809 14							13 50	5 25	950		1,447 97	4 75	1,452 72
	17	July		16	33 6	26,604						07				10 33	667 83		297 97		976 13							22 00	7 60	928	955	2,092 27	6 54	2,098 71
		August								196,632	1 76		$0 04	0 0063	0 0286			$582 03		$1514 06	2,096 09	020	0 0029	0 0076	006	0 0004	037								
	10	September		9	24 12	19,600						07				24 69	494 39		219 52		738 60							13 75	4 97	951	947	1,404 14	4 35	1,408 49
	10	October		9	11 12	9,200						06				10 20	250 87		103 04		364 11							5 31	1 98	941	952	557 66	2 95	560 61
		November																																
		December		16	20 2	16,064						09				9 95	356 50		179 91		546 36							16 00	5 20	935	950	1,558 87	5 21	1,594 08
				139	2	111,278				196,632	1 76	$0 08	$0 04	$0 0063	$0 0286	$80 51	$4,043 08	$582 03	$1246 31	$1,514 06	$7,465 99	$0 020	$0 0029	$0 0076	$0 006	$0 0004	$0 037	90 81	32 20			$9,117 17	$31 10	$9,148 27

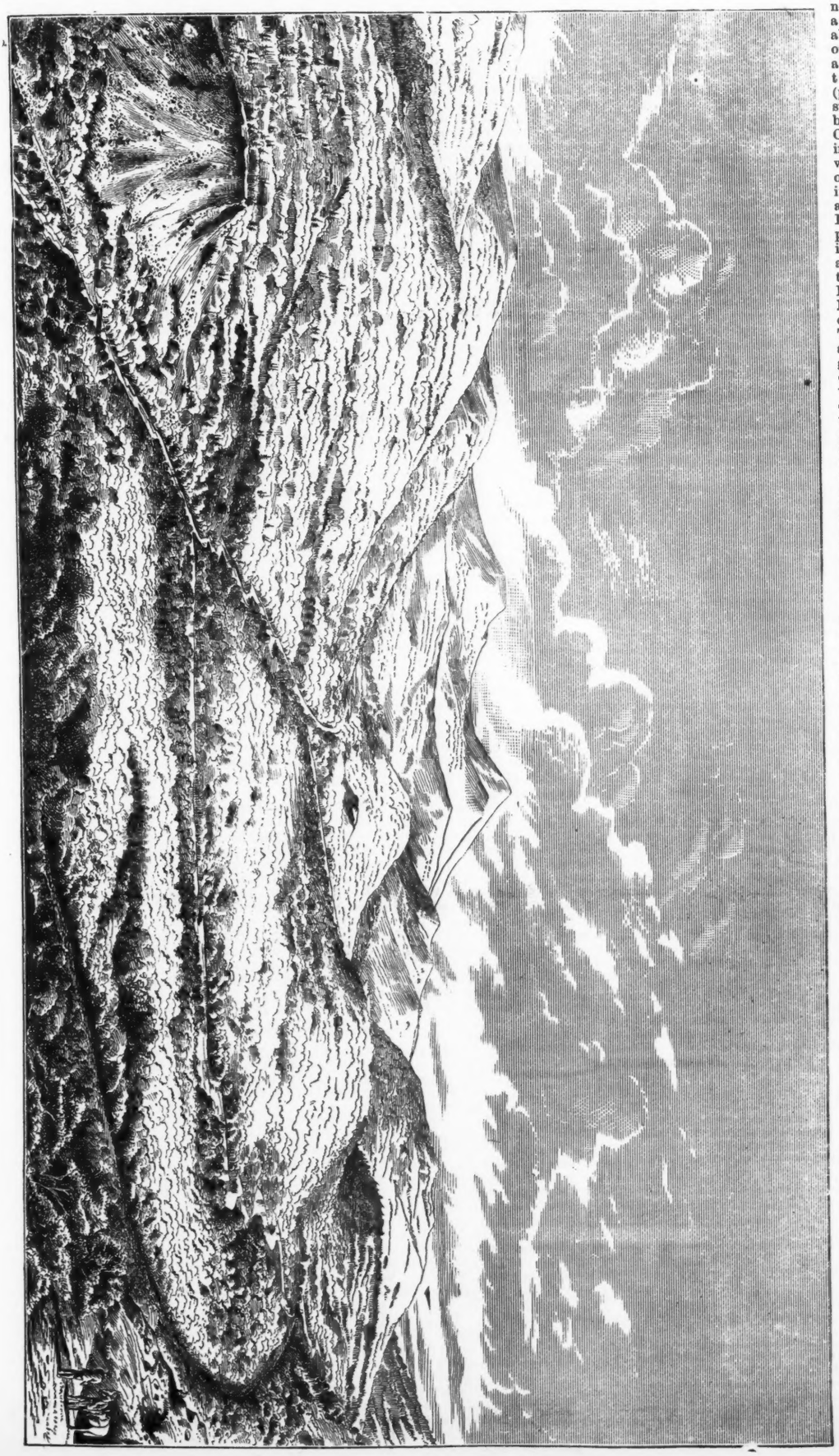
TABLE VIII.—THE SICARD CLAIM. TABULAR STATEMENT SHOWING AMOUNT OF WATER USED AND CUBIC YARDS OF GRAVEL MOVED; COST AND RECEIPTS OF HYDRAULIC WASHING FROM MAY 28, 1874, TO JANUARY 21, 1875.

Year.	Run Commenced.	Months.	End of Run.	Washings. Days.	Washings. Hours.	Amount of Water used in 24 hours. M. I.	Grade of Sluice.	Height of Banks.	Water Pressure.	Cubic Yards Gravel Washed.	Cu Yds Gravel Moved per inch of Water.	Average Yield. Per Inch Water.	Average Yield. Per Cubic Yard.	Average Cost. Water per Yard Gravel Moved.	Average Cost. Material, etc., per Cubic Yard.	Total Cost. Melting and Refining.	Total Cost. Labor.	Total Cost. Blocks and Lumber.	Total Cost. Water.	Total Cost. Material.	Grand Total.	Relative Cost per Cubic Yard. Labor.	Relative Cost per Cubic Yard. Blocks and Lumber.	Relative Cost per Cubic Yard. Material.	Relative Cost per Cubic Yard. Water.	Relative Cost per Cubic Yard. Melting and Redming.	Total Cost.	Bullion Yield. Amalgam. Pounds Av'd'ps.	Bullion Yield. Weight before melting. Pounds Avoirdupois.	Bullion Yield. Fineness. Gold.	Bullion Yield. Fineness. Silver.	Bullion Yield. Value of Gold.	Bullion Yield. Value of Silver.	Bullion Yield. Total Amount of Bullion Produced.
1874	28	May																																
		June																																
	14	July		3	17 18					51,667	3 00	$0 41	$0 13			$22 23	$429 12		192 73		$1,262 08	020			093		033	32 00	11 75	943	947	$3,320 74	$9 00	$3,329 74
	13	August		12	16 16	17,208										4 75	613 25				778 07							36 00	13 50	940				3,801 11
		September		24	15 17	7,854				11,515	2 46	43	29			31 36	658 75		87 97		1,553 47	057			007		074	32 50	12 27	936	955	3,413 20	15 51	3,428 71
	5	October												0 0039	0 0360			$950 00		$603 47			0 0061	0 0038		0 0007								
	20	November		18	19 22	9,958				28,640	2 87	41	14			7 32	973 62		111 53		1,092 47	033			003		046	43 25	14 85	934	951	4,158 40	18 96	4,177 36
		December																																
1875		January		21	37 10	18,708				63,525	3 39	29	08			44 04	1,265 74		209 53		1,519 31	019			003		032	53 00	10 57	941	950	5,445 60	14 55	5,460 15
				107	11	53,728				155,347	2 89	$0 37	$0 13	$0 0039	$0 0360	$109 70	$3,940 48	$950 00	$601 75	$603 47	$6,205 40	$0 025	$0 0061	$0 0038	$0 004	$0 0007	$0 039	196 75	71 94			$16,337 94	$58 02	$20,197 07

THE SWAN AND BLUE PLACER CLAIM.

Staff Correspondence of the Engineering and Mining Journal.

This property, which is very beautifully illustrated in the accompanying engraving, lies in Summit County, Colorado, on the west slope of the main range of the continent, and about 31 miles from the terminus of the Colorado Central Railroad at Georgetown. It is one of the properties of "The Gold Placer Mining Company," an organization formed under the laws of the State of Connecticut, and operating in Summit, Park, Lake, and Grand Counties, in Colorado.



The Blue River rises just north of Mount Lincoln, and is a mountain stream of considerable magnitude. For 24 miles of its length its bed lies directly along or close to the outcrop of the gold-bearing quartzite (probably the Potsdam sandstone), which is traceable with but few breaks from Southern Colorado, through Wyoming, into and through Montana, and which in every known portion of its course has been productive, when eroded, of highly auriferous gravel. The Swan River has its origin among the porphyritic trachytes which exist in huge dikes and overflows all along the western slopes of the divide from the head of the Blue, at Hoosier Pass and Mount Lincoln, to Mount Guyot, a distance of nearly 25 miles. These prophyries and trachytes are highly impregnated with gold, and have yielded by their disintegration the rich ground which exists, and is being worked in the valleys heading among them. The largest outflow or dike of porphyry which occurs in this vicinity bends to the west and northwest from the range just south of Mount Guyot, forms the dividing ridge between the South Swan and French Creek, crosses Gold Run, and terminates at the low hill at the junction of the Swan and Blue.

By referring to our engraving the reader will be able to locate all these points with accuracy. The flat peak in the distance is Mount Guyot, whose altitude is 13,389 feet above the sea. To the right, and presenting a sharp conical summit, is Old Baldy, which attains an altitude of about 200 feet greater than Guyot. Directly in the foreground is the Blue Valley, stretching along the picture from end to end, and showing the road from Georgetown to Breckinridge in the front, with the stream itself farther back and somewhat hidden in the thick chaparral. The stream entering the Blue from the background is the Swan River. In the center of the picture are the small terminal hills of porphyry spoken of above, behind and between which is shown the valley of Gold River.

The property represented occupies the broad valleys or parks in which these three streams unite, extending for six miles up and down the Blue, and four miles up the Swan, embracing altogether about 5,000 acres of alluvial deposits.

Gold was first discovered in this part of Colorado in 1859, and during the three years which followed it is estimated by the citizens of the valley that not less than five and one-half millions in dust were washed out. Of the numerous localities opened and worked the richest were Georgia and Humbug gulches, Gold Run, Delaware, Buffalo, Yuba Dam and Corkscrew Flats, and Jeff Davis and Stillson's Patch.

By 1863 it became necessary for the economical prosecution of work on these and all the claims in the valley to build extensive ditches, and to inaugurate numerous improvements. The miners, owning the ground in small claims ranging in size from one to five acres, were financially unable in the majority of cases to do this, and the Montana gold excitement being at the time at its height, the

valley was deserted for the newer diggings by all the roving and restless miners of the community. Those who never left have for the past twelve years maintained a quite regular yield of dust. About three years ago capital began to come into the district, numerous small claims were segregated into large ones, and a steady improvement in the industry has ensued.

Up to the present date the total yield of gold from the whole valley, calculating on the former figure of $5,500,000, may be set down at $6,200,000.

The ground shown in our illustration occupies a broad and extensive valley, which being quite level has, undoubtedly, afforded abundant facilities for the collection of enormous quantities of fine gold. It has been very thoroughly prospected by shafts, and is known to be auriferous from grass-roots down to bed-rock. The depth of the deposit will probably exceed 25 feet over almost the entire claim, and will yield from 20 cents to $3 to the cubic yard, averaging perhaps 50 cents in all parts, except on the border of the river rock. Taking this figure as a basis, it will be found that the gross contents of the property is in round numbers $95,000,000, a figure so large as to be almost beyond belief. It is to be remembered, however, that the claim is of size enough to employ a large force of men for several generations in its working.

Estimating the value of the claim on this basis would, of course, be deceptive or unwarrantable were the surrounding alluvial deposits and their value unknown. And it is, of course, to be remembered that some expenditures are necessary to open the ground. But so much is already known of the deposits of this valley and its tributaries, and of the formations from whence the precious metal has originated, that the calculation has in it elements of great certainty. The three streams which have in the past deposited the soil and gravel which now forms this park are gold-bearing from end to end, and cannot have failed to deposit a large portion of their treasures on the broad and level bottom in which they join.

The Gold Placer Mining Company will begin work on the ground early in the season of 1878. At the northern and lower end of their claim the Blue has been diverted from its channel, and preparations made for the laying of a bed-rock flume. This preparatory work is shown on the left-hand side of our engraving. The flume will be steadily pushed ahead up the valley till bed-rock is reached, which, according to survey, will be done at about 1,000 feet above the point where the stream has been diverted. When the bed-rock is reached, the flume will be divided into two branches, one of which will proceed up the channel of the Blue, and the other up the Swan. In this manner the entire claim will be placed in working shape.

The Gold Placer Mining Company is an organization of great strength, and the owner of a number of very fine claims in other parts of the Blue Valley, and also in the Platte, Arkansas valley, and on Grand, Willow and Wolf's creeks, in Grand County. Their operations will begin in earnest next season, and there should be no reasonable doubt of their success. Knowing personally a number of the members of the company, we can congratulate the State on the inauguration of an enterprise of such magnitude, and upon the fact that men of such high standing have the management of it.

THE LOWE GAS AND PROF. MORTON.

By G. S. Dwight.

Prof. Morton having, in the last issue of the JOURNAL, charged that the writer's criticism upon his recent report on the Lowe gas was made up of "unsupported assertions and innuendoes," allow me to say that it was intended to be as *direct* in its statements as courtesy would allow. The strictures had special reference to the *animus* of Prof. Morton's paper rather than its chemistry, which was left for review by analysts hereafter; but as the professor objects that my authorities are "anonymous," and that I oppose only "facts *to be developed* in the future," I am compelled to answer briefly. He offers in evidence of his competency for his chemical investigation the fact that he "formerly occupied the Chair of Chemistry in the University of Pennsylvania." He cannot, therefore, consider me disrespectful in reminding him that the very next column of the paper which published his report contained an analysis, signed by his successor in that identical seat (Dr. R. E. Rogers), in which the proportion of CO was widely different from that claimed by him. And lest he should set up that the gas was not identical, it may be stated that other professors of excellent repute, from the same university (Genth and Sadler), had made tests upon the Lowe gas at the Lochiel House, Harrisburg, previous to his visit there, and delivered their report to the *same clients*, which, because of the unexpectedly small percentage of this same constituent, was pigeon-holed, while his has been published. And last, but not least, among my "eminent authorities" as to the economy and success of a water gas, I would not omit to mention a gentleman whom the Stevens Institute of Technology but recently delighted to honor by the conference of its first degree "for distinguished services in chemical science," Dr. Henry Wurtz, who has already given to the world some very favorable results of expert work upon the Lowe process. It may be that these experts are all wrong, and Prof. Morton alone right. He evidently so believes when he says, "I have not the slightest doubt that every one of my results will be fully supported by every *honest* analysis;" but the questions of comparative ability and integrity I leave the parties themselves to settle. I must, however, take this occasion to resent warmly any insinuation from any source, that those who represent the Lowe process are "interested in the suppression" of facts. Five years ago they pledged themselves to the development of the system upon its merits, and have conscientiously pursued this principle. Their own money and time have always been ready to accept any challenge which intelligence and even prejudice could suggest. They have combined with extensive and almost sleepless practical experience the most searching investigation that competent experts could make. Doubting critics have been urged to examine the method, to visit their works, and, if desired, go through their books and papers. They have had no secrets or "artificially colored" facts, but have widely published the results of their labors, and yet, despite the antagonism of certain vested interests, none of their statements have ever been refuted, or the tinge of a misrepresentation put upon them by any respectable authority. Under these circumstances they cannot allow to pass unnoticed any insinuation against a scrupulous honor which even their competitors should respect.

They have an abiding faith in the present success and the prospective usefulness of the process, and believe that the public have so great an interest therein, because of its important relation to cheap light and heat, that it is not to be asphyxiated by the (CO) conservatism of the old companies or the special pleading of their (CO) counsel.

THAT "TEN INCH" RAILROAD GAUGE.—On page 423, under the title of "A Narrow Railroad," we erroneously stated that the gauge of the North Billerica and Bedford (Mass.) Railroad is *ten inches*. In reality it is *two feet*. A correspondent writes us: "The statement regarding the *ten inch* gauge probably arose from the fact that a short model road of this gauge was made some time since by the projector of the North Billerica and Bedford Railroad for purposes of experiment."

MINING NEWS.

Staff Correspondence of the Engineering and Mining Journal.

NEVADA.

White Pine News.—The Fay mine, a rich producer of the early day, has been reopened and is yielding well.

The King mine furnace is in operation. The Henry Tunnel has penetrated a low grade quartz formation, which is to be explored laterally.

The recently discovered ore body in the Eberhardt tunnel is being prospected.

Pioche Record.—Bullion shipments for the two weeks ending November 24 amounted to $28,000.

Alps S. M. Co.—The stope on 9th level Mazeppa mine is yielding usual amount of first-class ore, which is averaging at mill $175 per ton. Owing to defect in the cable but little ore has been extracted from new developments on 11th level. The vein has been drifted on in this level a distance of 90 feet and retains its uniform thickness. The new cable will arrive on Monday, and work will then be pushed ahead at this point vigorously; also the main shaft will be sunk 100 feet deeper, and a drift from 12th station run west a distance of 300 feet. The company are now making a final clean up at Flag mill and expect to occupy new mill on next Monday. The Superintendent informs us that it will probably be a week before he will commence working first-class ore. The bullion shipment for the present month will amount to $30,000.

A winze is being sunk from the 1200 foot level of the Raymond & Ely, which at present date is down about 70 feet. No material change in the ore. Considerable material is coming from the upper levels, and the mill is kept steadily running on this supply and tailings. The Day S. M. Co. are putting 50 stamps at various mills in repair, and expect to be crushing a hundred tons daily in a few weeks. The mine is in fine condition, and it is thought will soon be completely out of litigation.

The *Carson Appeal* has the following concerning the Northern Belle, at present one of the Nevada Bonanzas:

"About the 15th of August, 1876, Mr. P. S. Buckminster arrived at Belleville and took charge of the company's affairs as General Superintendent. At that time it was claimed by the bears that the mine was worked out, and that only about 1500 tons of ore remained in the mine which would work $40 per ton. Certainly this was enough to dishearten a less sanguine man, but instead of backing out he went boldly to work to develop the mine. The bullion shipments tell more quickly than anything else what a mine really is, and the number of bars turned out from their mill each month shows that there is silver somewhere. Of course obstacles presented themselves at every turn, but to his credit be it said he has successfully removed them, and to-day the Northern Belle mine looks better than ever. In other words, for a 'worked out' mine they have paid their consecutive dividends of $50,000 each, the last on the 10th instant, and has 'never cost the stockholders a cent.' From 1,500 tons of $40 ore Mr. Buckminster has made over $800,000 for the company, a portion of which is represented by the new mill above town. The mill started up on the 14th of March, 1875. It has run constantly ever since—only stopping probably one day in a month, and at present is in excellent condition, and the twenty stamps can be heard pounding away night and day. During one 24 hour run last month 71 tons of ore was worked, though the average run is from 50 to 60 tons per day. The old mill is run in preference to the new one solely on account of the close proximity of the assay office and conveniences for smelting. The supplies on hand are ample for every emergency. Ten new cam shafts, new settler bottoms, and, in fact, a complete outfit of castings recently arrived. The mill runs successfully, turning out a high percentage of silver, and all acquainted with such matters know to whom the credit is due. The ore body in the mine is as extensive as ever, and it may safely be predicted that the Esmeralda bonanza will turn out its monthly dividends for years to come."

General Nevada Items.—A 2,400-foot Hallidie tramway has been contracted for for the Standard mine at Esmeralda.

At Ione the Ural Company and the Grantville mines are employing altogether nearly a hundred men and turning out plenty of ore.

The Real del Monte mine, at Esmeralda, after many years of idleness, is to be reopened. Heavy sinking machinery has been purchased.

At Bodie the Standard, Bechtel, Black Hawk, McClinton, Bodie, Bulwer, and Red Cloud Consolidated are pushing work with very encouraging results. The Standard, the big mine of the district, is shipping nearly $70,000 monthly. The Syndicate tunnel in this district is over 900 feet long, and the Aurora over 500 feet.

Comstock Notes.—The new pumping and hoisting works of the Daney mine are being set up. A heavy flow of water has been struck at the 1,150-foot level of the Justice. Both the Silver Hill and Justice companies are contemplating new shafts, which will cut the vein about 2,000 feet deep. Suit has recently been begun by the Gold Cañon Mining Company against the Justice.

The Sutro is progressing at the rate of 50 feet per week in soft, dry ground.

MONTANA.

In the vicinity of Jefferson City mining is brightening up perceptibly. The indebtedness of the Montana Company is in process of being settled up, and the manager will have a large capital in excess to work with. There is also much activity in the Rumley, Comet, and Gregory mines.

Butte has now four amalgamation mills in constant operation, which together are turning out nearly $3,000 in silver bullion daily. From the small and insignificant camp of two years ago, this town has advanced to the position of one of the foremost mining centers in the West, and in another six months will, doubtless, display much more progress. A fifth mill is being arranged.

An Idaho exchange has the following notice of some copper discoveries in the Snake Valley (Idaho), which, if they are anywhere near the truth, are something remarkable. We think the figures representing per cent. should be "taken with caution."

A correspondent of the Butte *Miner* furnishes the following notes regarding the Pony and Boulder districts:

"The Peacock Copper mine, the most extensive in this district, was discovered in 1862, and has been represented up to the present time. The location is 1,500 feet in length, and 600 feet in width. The present developments consist of a shaft 40 feet in depth and several cross-cuts on the vein, all of which are in solid ore. The ore vein from wall to wall is 120 feet in width. The country rock is granite. The ore, as it is taken from the mine, assays from 40 to 85 per cent. in copper, and contains considerable gold. Boulders of ore weighing several tons are lying about on the surface, that average 82 per cent. copper; and there are now over 500 tons of ore on the surface that will average 62 per cent. This mine is located about half-way between Brown Lee's ferry and Pittsburg Landing, and six miles back from Snake River.

"Three miles south of the 'Peacock' is another valuable copper mine, known as the 'White Monument Mine.' The ore averages from 60 to 74 per cent.

copper. The great mines of Abernathy & Co. lie about twelve miles south of the 'Peacock,' and the Heath Silver district, a few miles still further south, all being in the same range and belt of mining country.

"Mallory Bro.'s mill at Pony is running steadily on Willow Creek ore, which yields $20 per ton. This lode has two tunnels on the vein, the lower one 180 feet in length, and at the breast over 100 feet from surface. The mine produces about 25 tons of ore per day, and will be worked, together with the Ned lode, the coming winter.

"Mr. Getchell's mill will start on Bass Tweed (30 feet wide, $8 per ton ore) in a few days.

"Mr. Lehmen's 10-stamp steam mill, two and a half miles from Pony, made a run recently on Clipper quartz, with satisfactory results. The mill commenced crushing yesterday on another lot from the same lode.

"The new strike on the L. C. Macland's Crevice lode improves as developed. There are about 50 tons of $30 quartz on the dump.

"The Placer mines on Norwegian gulch have not paid as well as usual this season.

"The Boulder mines are about four miles from Pony, beyond the divide between Willow Creek and the Boulder. Over there the Mammoth has a 100-foot tunnel tapping the vein 80 feet from the surface. The crevice is 12 feet wide. The ore, of which there is 300 tons on the dump, is low grade, but pays well for crushing.

"The Grand Central lode, owned by Noble & Cameron, has a tunnel striking the vein at a depth of 30 feet, with 7 feet of quartz, 3 of which mills $30 per ton and the balance $10. This is an extension of the Ready Cash lead, Walters & Co. owners, which is traceable for 1,500 feet, and developed in several places, all of which prospect well.

"The Monitor, owned by John Reed & Co., has six feet of ore, two of $25 per ton, and the balance $10.

"The Leviathan, owned by Walters, Parsons & Co., has a tunnel tapping the lode at a depth of 40 feet, exposing a six-foot vein of $30 rock.

"The above lodes have been tested by Walter's 10 stamp mill, erected to crush Mammoth ore, and by Parsons & Percy's 3-stamper, for Leviathan ore, both of which mills have been running regularly and successfully for some time. There are also other locations in the district which look quite flattering on the surface."

COLORADO.

Mr. Neikirk, of the Melvina mine, has leased the Everett Concentration mill at Crisman, and will run it steadily during the winter. Some additions are to be made.

The Victoria, on Gold Hill, which has been under lease for a year past, has gone into the hands of a new set of tributers, who will work it with a strong force during the year. It is a good producer.

"*The Centennial Mine.*—This mine is located near the juncture of Pennsylvania gulch with Four Mile creek, and is the property of the Illinois and Colorado Mining Company, of Jacksonville, in the former State. B. F. Berger and W. F. Simmons, directors of the company, have recently come out on a tour of inspection; and with the view of securing the necessary machinery for working the mine, and milling its ore. Eight tons and seven hundred and forty-six lbs. of unassorted ore, taken from the three-foot pay-streak of decomposed quartz at a depth of fifty feet from the surface, produced over fifteen ounces of gold, valued at $316.12. This preliminary test was made at the Chicago and Colorado Company's stamp mill on Left Hand Creek, under charge of Colonel Brainerd, and is considered one of the best runs yet made in Boulder county, as it is estimated that 66½ per cent. of gold was saved. This mill is fitted up with improved silver plated copper plates, furnished by Fraser & Chalmers, and this showing would indicate that they possessed the advantages claimed for them by the manufacturers.

"A cross-cut tunnel is being driven to the vein, which will cut it at a depth of 535 feet. Work is being pushed on both shaft and tunnel by night and day shifts. The directors are well pleased with the property, and will carry home some fine yellow nest eggs."—*Courier.*

The Smuggler, which has become probably the first mine of its class (telluride) in the State, is working fifty men regularly. The monthly shipments average about 20 tons of second-class, worth $300 per ton, and a half ton of first-class worth from $6,000 to $8,000, in addition to which is the third grade which is being concentrated on Frue tables.

The machinery for the Grand View mine has arrived on the ground, and is being set up.

The Corning tunnel is now 1,080 feet in length. It is being pushed ahead night and day, and is making about 8 feet per week—the rock being very hard. Stoping is going on on the last lode cut, and regular shipments of ore are being made.

Tellurium ores were reported, a short time ago, to have been discovered at Empire, but the report has proved to be incorrect.

A contract has been made between the Niles concentrating works and the Hukill mine, for a supply of 20 tons daily of low grade ore.

The November bullion product of Gilpin County is placed at $255,000 by the *Register.*

"*The Alps-Mackie Mine.*—Work progresses steadily at the Alps-Mackie mine, and about 25 men are employed below and above ground. The mine will not be opened for producing shape for many weeks yet, but Mr. Hutchinson is pushing developments as fast as possible. In sinking one shaft and draining two levels, about one cord of ore is obtained daily. This week, four batteries are engaged in crushing the mill ore. The mill runs have returned from three to six ounces of gold per cord, but within a few days ore of better appearance has been encountered, and assays make it evident that it will surpass the above—perhaps yield eight or ten ounces. The work is carried on through the Alps shaft. At a depth of 350 feet the Bonaparte vein, which is wide apart from the Alps vein on the surface, crosses it. Years ago, the operators of the mine sank their shaft from the point of junction on this vein, which is the larger but poorer one, leaving the Alps, which they had come down on to that point. After going 70 feet they stopped sinking. At this point, 390 feet deep, a level is being run west. From this place a cross-cut is being driven through the solid rock to cut the Alps vein, which there is 20 to 25 feet distant. Another level is being driven west at a depth of 320 feet, and may be carried east. Meantime, the shaft is being carried from the junction of the veins down on the Alps vein, as should have been done long ago. It has been sunk 15 feet since work began. Two feet of good ore has been opened. Mr. Hutchinson has made many improvements on the surface, such as enlarging both shaft houses, and in connecting them with the engine house."—*Register.*

NOTES.

THE CANADIAN PHOSPHATE LANDS.—The Montreal *Gazette* says: "Speculation in phosphate lands near Buckingham continues. Mining rights on several small lots have been sold at figures ranging from $200 to $300."

MANGANESE BRONZE.—According to Gintl, a tough, malleable bronze, of nearly the color of brass, contained 76·710 parts copper; 16·147 manganese; 5·490 zinc; 0·320 iron; 0·762 tin and silicon. This represents an alloy of 15 parts copper, 4 parts manganese, and 1 part zinc.—*Franklin Inst. Jour.*

DISCOVERY OF COAL IN AMADOR COUNTY, CAL.—The Amador *Ledger* says: "In boring for an artesian well in Jackson Valley recently, a seam of coal of unknown thickness was struck. The coal is said to be far superior to any heretofore discovered in the valley. Indeed, the coal is good enough to heat iron to the welding point—something that blacksmiths cannot do with the Ione coal.

SKETCHING-PAPER.—MM. Carl Schleicher and Schull, of Duren, Germany, prepare rolls of sketching-paper of excellent quality, and uniformly ruled in squares of 1 centimeter, ½ centimeter, and 1 millimeter on the side. The difference in the breadth of the rulings is so plainly marked that any projections can be readily made, without instrumental measurements.—*Franklin Inst. Jour.*

INDICATOR FOR HOT JOURNALS.—M. Coret has contrived a simple apparatus for giving an alarm, when boxes are not sufficiently greased. It embraces a certain number of metallic tubes with elastic bottoms, filled with an expansible liquid, the whole inclosed in a small metallic cylinder. The instrument can be attached to a turning arbor, and if the arbor heats, the liquid dilates, forming an electric contact, which sounds an alarm.—*Franklin Inst. Jour.*

PITTSBURG AND CONNELLSVILLE RAILROAD COMPANY.—The annual meeting of this company was held in Pittsburg on the 3d inst. The report of the president and directors showed the earnings for the year ending September 30, 1877, $1,388,134.22; operating expenses, $982,015.58; net earnings, $406,418.64, and that no charges were made for construction during the year. The road was reported to have been in better condition than at any previous period in the company's history. The number of tons of coal transported during the year was 438,792, out of which 280,430 were gas coal, and 699,276 tons of coke, and the revenue for the transportation of coal oil was $149,704.27.

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ANSWERS.

ASSAYS.

Denver Office.—T. F. VAN WAGENEN, Assayer:

All assays are reported in ounces per ton of 2,000 lb. The ounce of silver is worth about $1. The ounce of gold about $20. Lead and copper are reported in per cent.

279. J. M. E., Denver, Colo.—Silver, 28½ oz.; gold, ¼ oz.; lead, 18·3 per cent.

280. R. W., Denver, Colo.—Silver, 109 oz.; gold, 0·2 oz.; copper, 2·18. per cent.

281. W. F. F., Caribou, Colo.—Silver, 63·2 oz.

282. A. P., Fairplay, Colo.—Silver, 141 oz.; lead, 23 per cent.

283. D. R., Puello, Colo.—No. 1. Silver, ,94 oz.; copper, 11·1 per cent. No. 2. Silver, 101 oz.; copper, 4·1 per cent.

284. C. A. R., Laramie, Wyo.—Gold, 3½ oz.

285. W. W. V., Trinidad, Colo.—Gold, 7·7 oz.

286. E. S., Santa Fe, N. M.—Silver, 11½oz; gold, ¼ oz.; lead, 2·4 per cent.

287. J. O'N., Salt Lake, Utah.—Silver, 29 oz.; lead, 53·3 per cent.

288. C. C. D., Balarat, Colo.—Silver, 8 oz.; gold, 14·36 oz.

289. G. T., Eureka, Colo.—Silver, 1192¼ oz.; lead, 14·1 per cent.

290. B. M. R., Del Norte, Colo.—No. 1. Silver, 163·3 oz.; lead, 36·6 per cent. No. 2. Silver, 40·1 oz.; lead, 32·1 per cent.

291. D. W. J., Denver, Colo.— ———

292. F. J., Jamestown, Colo.—Gold, 6½ oz.

293. COLES S. M. Co., Virginia, M. T.—Silver, 2½ oz.; gold, 2·5 oz.

294. E. R. N., Deadwood, D. T.—No. 1. Silver, 3 oz.; gold, 2¼ oz. No. 2. Silver, 7 oz.; gold, 3½ oz.

295. H. C. F., Custer City, D. T.—Gold, 2½ oz.

296. M. W. W., Boulder, Colo.—Silver, 6 oz.; gold, 12·1 oz.

297. P. W., Elizabethtown, N. M.—Silver, 4 oz.; gold, 2¼ oz.

298. P. R. G., Montezuma, Colo.—Silver, 312·5 oz.; lead, 19·4 per cent.

299. A. E. P., Butte, M. T.—Silver, 38·4 oz.; copper, 47 per cent.

ANSWERS.

300. H. H. H., Llano, Texas.—The samples were pure granite, very coarsely crystallized. There was no antimony whatever; the black mineral which, I presume, you mistook for that being black mica. It would not be natural to find silver in such a rock. If there were, however, it would be good milling material.

301. W. H. J., Fairplay, Colo.—Black mineral from Tarryall proved to be wholly iron. It became highly magnetic on being wholly oxidized in the blowpipe. Could find no traces of nickel, though a thorough test for that metal was not made.

302. A. N. W., Empire, Colo.—There is no tellurium in the sample. The dark mineral which misled you is an antimony mineral. There is a high percentage of silver in the specimen, and only a small quantity of gold. Although there is no tellurium in the piece you send, yet Empire is not an unfavorable locality for that mineral, if we may judge by the character of the granite bedrock. Further northwest, towards the Range, there are even better prospects for finding it.

STATISTICS OF COAL PRODUCTION.

This is the only Report published that gives full and accurate returns of the production of our Anthracite mines.

Comparative Statement for the week ending Dec. 8, and years from Jan 1st.

Tons of 2,240 lb.	1877. Week.	1877. Year.	1876. Week.	1876. Year.
Wyoming Region.				
D. & H. Canal Co.	52,129	1,741,891	34,360	1,862,143
D. L. & W. RR. Co.	61,764	1,854,798	62,648	1,848,004
Penn. Coal Co.	22,750	979,838	24,960	1,032,790
L. V. RR. Co.	*25,612	859,695	27,237	895,179
P. & N. Y. RR. Co.	*753	41,743	1,151	24,384
C. RR. of N. J.	35,166	1,255,325	45,147	1,303,742
Penn. Canal Co.	...	340,231	....	407,522
	198,174	7,073,581	195,529	7,373,764
Lehigh Region.				
L. V. RR. Co.	*78,455	3,157,049	67,057	2,683,751
C. RR. of N. J.	39,291	1,427,410	31,431	1,327,029
D. H. & W. B. RR.	1,120	32,866	451	39,981
	118,866	4,617,325	98,939	4,050,761
Schuylkill Region.				
P. & R. RR. Co.	140,547	6,423,820	100,126	4,696,931
Shamokin & Lykens Val.	12,922	678,424	21,432	912,073
	153,469	7,102,244	121,558	5,608,944
Sullivan Region.				
Sul. & Erie RR. Co.	*961	19,724	138	30,189
Total	471,470	18,812,874	416,144	17,063,658
Increase	55,326	1,749,216	....	....
Decrease	....	...	....	....

The above table does not include the amount of coal consumed and sold at the mines, which is about five per cent. of the whole production.

* For 8 days ending Dec. 8.

The Exports of Coal from Baltimore for the week ending Dec. 7 were ... tons, and since January 1st, 25,915 tons as against 26,459 tons for the corresponding period of 1876.

The decrease of shipments of Cumberland Coal over the Cumberland Branch, and Cumberland and Pennsylvania, Railroads amounts to 152,517 tons, as compared with the corresponding period in 1876.

Perth Amboy business:

	Tons.
Received for the week	29,209
Shipped for the week	33,095
On hand Dec. 8	94,972

Belvidere Delaware RR. report for week ending Dec 8.	Week	Year. 1877.	Year. 1876.
Coal for shipment at Coal Port (Trenton)	4,177	58,567	290,806
" " " South Amboy	14,308	510,250	428,182
Coal for distribution		5,794	185,529	174,056
Coal for Company's use		1,315	67,099	66,855

Receipts of Coal at Boston, for the week ending Dec. 7 and years from Jan. 1.

Tons of 2,240 lb.	1877. Week.	1877. Year.	1876. Week.	1876. Year.
From				
Alexandria and Georgetown	5,174	84,988	4,573	59,181
Philadelphia	28,796	671,539	25,491	598,084
Baltimore	2,856	150,371	7,609	144,598
Other places	10,945	250,189	12,558	278,213
Great Britain	1,198	18,334	86	5,734
Nova Scotia	300	41,677	....	24,991
Total	49,269	1,217,098	50,317	1,110,801

The production of Bituminous Coal for the week ending Dec. 8 was as follows:

Tons of 2,000 lb., except where otherwise designated.

Cumberland Region, Md.	Week, Tons.	Year, Tons.
Tons of 2,240 lb	32,596	1,481,487
Barclay Region, Pa.		
Barclay RR. tons of 2,240 lb	9,498	314,420
Broad Top Region, Pa.		
Huntingdon and Broad Top RR	2,503	131,079
*East Broad Top	1,169	48,531
Clearfield Region, Pa.		
*Snow Shoe	1,595	38,774
*Tyrone and Clearfield	27,047	1,233,776
Allegheny Region, Pa.		
*Pennsylvania RR	3,770	166,551
Pittsburg Region, Pa.		
*West Penn. RR	4,519	169,794
*Southwest Penn. RR	927	35,558
*Penn & Westmoreland gas coal, Pa. RR.	28,195	679,274
*Pennsylvania RR	7,011	346,281

* For the week ending Nov 28.

The Production of Coke for the week ending Nov. 28

Tons of 2,000 lb.	Week.	Year.
West Penn. RR	837	53,489
Southwest Penn. RR	10,287	567,474
Penn & Westmoreland Region, Penn. RR	1,736	59,099
Pittsburg, Penn. RR	2,234	100,189
Total	15,084	780,451

COAL TRADE REVIEW.

NEW YORK, Friday Evening, Dec. 14, 1877.

Anthracite.

A few buyers have made purchases in expectation that a coal combination will be formed; but during the discussions on this subject business has been brought nearly to a standstill, while prices have been advanced from 10c. to 50c. per ton, although quite nominal. Some of the companies have sufficient orders taken earlier in the year to keep up active shipments.

At last, a meeting of the representatives of the coal companies, for the purpose of forming a coal combination, has taken place. This we saw coming several months ago, and drew attention to it; but obstacles ca d prevented a meeting until yesterday, when there were present, at the Coal and Iron Exchange, the following gentlemen: Geo. A. Hoyt, President of the Pennsylvania Coal Co.; Samuel Sloan, President of the Delaware, Lackawanna & Western Railroad Co.; Thomas Dickson, President of the Delaware & Hudson Canal Co.; Franklin B. Gowen, President of the Philadelphia & Reading Railroad Co.; E. W. Clark, President of the Lehigh Coal & Navigation Co.; Thos. A. Scott and A. J. Cassatt, President and Third Vice-president of the Pennsylvania Railroad Co.; and Robert H. Sayre and G. B. Linderman, representing the individual interests on the Lehigh Valley Railroad.

Asa Packer, President of the Lehigh Valley Railroad Co., refused to attend the meeting, still holding to his often expressed views, that, as a common carrier, he had no right to enter into an arrangement to restrict business. He, however, spent the day in the office of his company, in the Coal and Iron Exchange, where he could consult with those who attended the meeting, and receive the legal advice of the attorney of his company. He expresses a willingness to act in harmony with the other companies so far as his position, viewed from his own standpoint, will permit.

Some time was also spent in deciding upon a satisfactory representation of the New Jersey Central Railroad Co., which, being in the hands of a receiver, could not be represented by the power in control. This was overcome by E. W. Clark representing this interest as President of the Lehigh Coal & Navigation Co.

Upon the whole the meeting appears to have been harmonious, having nothing on which a disagreement could be had, the time being spent in examining the credentials of those present with the view of having each interest responsibly represented. Messrs. Dickson, Gowen, and Sayre were appointed a committee to report to a meeting to be held next Tuesday, a plan to regulate prices and production. In another column will be found a programme supposed to represent the views of Messrs. Gowen and Dickson, and which, therefore, probably represents the essential features of the plan which will be submitted at the meeting next week. Except in the matter of the guarantee fund, and in the fact that *all* coal except that used at the mines, and that shipped to some foreign ports this plan differs little from that which governed the "late lamented" combinaton. With regard to these points there may be developed some difference of opinion among the representives of the companies, but it is more than probable that the proportions to be allowed to the several interests will prove the most difficult to arrange. Whether an acceptable division can be devised is a question which can only be determined at the meeting. It is quite certain, as we have many times stated, that the companies generally are very anxious to effect some arrangement. And it is stated, though we do not guarantee the information, that the banks, particularly the Philadelphia banks, are pressing the companies forward into the arrangement with the hope of being able to unload the paper, more or less connected with the coal trade, with which they are loaded down. It is easy to see that the Pennsylvania Railroad Company, with its large bituminous coal interests, would be benefitted by a strong advance in price, but it is not apparent how such companies as the Reading can be other than injured by any arrangement which will so greatly restrict their tonnage, as this combination must do. The anthracite iron trade, and the many industries depending on it will unquestionably be greatly injured, and the result of the higher prices will be to still further hasten the transfer of this great industry to the bituminous fields. Should the meeting on Tuesday result in the formation of a combination, it cannot ultimately be otherwise than disastrous to the greater portion of those going into it, and it will also prove most injurious to the trade itself, and the industries depending on cheap coal for their prosperity.

A combination would be used by the great stock jobbing ring to advance prices, and, if possible, to unload on unwary investors.

From what we have said, it will be seen that the prospects of combination are greater than at any time since the breaking up of the old one; but there is nothing in the plan or in the condition of the trade to induce us to believe that, if made, it will be other than short-lived and disastrous to the trade.

The production of anthracite for the week ending December 8 was 471,470 tons. as against 502,253 tons for the previous week, and 416,144 tons for the corresponding week of last year. The total production from January 1 has been 18,812,874 tons, as against 17,063,658 tons for the corresponding period of last year, showin an increase of 1,749,216 tons this year.

Bituminous.

There is a report that 9,000 to 10,000 tons of Clearfield coal has been sold for export. With this exception we learn of no business of importance. The Cumberland region has recovered from the disturbance caused by the late heavy rains in that section, and is closing the year with liberal shipments. The decrease in business this year, as compared with the like period of 1876, has been 152,517 tons. The Clearfield region continues to do a very fair business, and up to November 30 had gained about as much as the Cumberland region lost, the actual gain being 150,915 tons.

New York.

Wholesale Prices of Bituminous Coal.

Domestic Gas Coals.

Per ton of 2240 lb.	At the Shipping Ports.	Alongside in New York.
Westmoreland and Penn. at Greenwich, Philadelphia	$4 70	$5 50
" " at S. Amboy.	5 00	5 50
Kanawha at Richmond	4 10	5 40
Red Bank Cannel Pa. at Philadelphia	8 00	8 50
Youghiogheny, Waverly Co., at Balt.	4 50	5 65
Despard, West Va.	4 50	6 00
Murphy Run, West Va., at Baltimore	4 50	5 85
Fairmount, West Va., " "	4 40	5 70
Newburg Orrel, Md. " "	4 50	6 00
Cannelton Cannel, West Va.	....	10 00
" Splint " at Richmond.	6 00	7 00
" Gas Coal at Richmond	4 00	5 65
Peytona Cannel W. Va. at Richmond	....	10 00

Manufacturing and Steam Coals.

Cumberland at Georgetown and Alexandria, Va.	2 85@3 10	4 35@4 50
Cumberland, at Baltimore	3 10@3 25	4 35@4 50
Clearfield f. o. b. Canton, Baltimore	3 25@....	4 35@4 50
Clearfield "Eureka" and "Franklin" at mines per ton 2,000 lb.	75c.; f.o.b.	

Baltimore and Philadelphia per ton of 2,240 lb., $3.25; f.o.b. South Amboy, $4.25; alongside at New York, $4.50.

Foreign Gas Coals.

	Sterling.	Am. cur'cy
Newcastle, at Newcastle-on-Tyne	8/6@10/6	5 50@6 00
Liverpool House Orrel, at Liverpool	25/	13 00
Ince Hall Cannel "	35/6	18 00
" Gas Cannel "	25/6	10@10 50
Scotch Gas Cannel, at Glasgow, nominal,	25/	7 50
	Gold.	
Block House, at Cow Bay, N. S.	1 75	4 50
Caledonia, at Port Caledonia	1 50	4 25
Glace Bay, at Glace Bay	1 60	4 25
Lingan, at Lingan Bay	1 75	....
International mines at Sydney	1 75	4 50
Pictou, Vale mines, at Pictou	2 00	4 70

Retail Prices

Anthracite.

Per 2000 lbs.	Grate and Egg.	Stove.	Chestnut.
Pittston coal, delivered	$4 50	$4 50	$4 50
Lack. coal, delivered below 59th St.	4 00	4 00	4 00
*Wilkes-Barre, delivered	4 25	4 50	4 00
*Lehigh and Locust Mountain, del'd.	4 25	4 50	4 00

* These prices are for coal delivered below Canal Street The prices for coal delivered above that point are 50c. per ton more.

Bituminous.

Delivered, per ton of 2000 lb.

Liverpool Orrel.	$18 00	American Orrel	$11 00
Liverpool House Cannel	18 00	Red Bank Cannel	7 00
American "	11 00	Cumberland	9 00
Cannelt'n Block, or splint	10 00		

Baltimore. Dec. 13, 1877.

Specially reported by Messrs. E. STABLER Jr., & Co.

Wholesale Prices per ton of 2,240 lb.

Hard White Ash.

AFLOAT BY CARGO.

Lump and Steamboat	$3 20	Stove	$3 45
Broken	3 25	Chestnut	3 10
Egg	3 35		

In cars in dealers' yards or on switch, 15c. per ton additional

Lykens Valley Red Ash.

AFLOAT BY CARGO.		BY RAIL IN CARS.	
Broken	$3 58	Broken	$3 80
Egg	3 58	Egg	3 80
Stove	3 58	Stove	3 80
Chestnut	3 28	Chestnut	3 40

From wharf or yard to the trade, 65c. per ton additional.

Boston. Dec. 8, 1877.

Coal is firmer, on account of the talk of a new combination, but the feeling is somewhat feverish. Thursday the sales agent of the Philadelphia & Reading who was in this city, received orders to sell no more coal beyond this week; and the same day the sales agent of the Lehigh and Wilkes-Barre received orders to advance prices 30c. per ton—from $2.85 f. o. b. New York to $3.15.

We quote Boston wholesale prices as follows:

Anthracite, broken	$4 25@4 40	Caledonia	$4 25
do. egg	4 25@4 40	Cannel, English	16 00
do. stove	4 50	do. Buckeye	10 00
Franklin	4 75	Lingan	4 50
Cumberland	4 80@5 00	Pictou	4 75
Clearfield	4 55@4 75	Penn	6 40
Westmoreland	6 40	Youghiogheny	6 40

—*Commercial Bulletin.*

Chicago, Ill. Dec. 11, 1877.

Specially reported by Messrs. RENO & LITTLE.

Retail prices of coal delivered per ton of 2,000 lb.

Lackawanna Stove	$6 75	Erie and Brier Hill	$5 50
" Chestnut	6 75	Wilmington and Ill.	3 50@4 00
" Grate	6 75	Blossburgh	6 50
" Egg	6 50	Piedmont	7 50

Cleveland, O. Dec 11, 1877.

Specially reported by F. A. BATES, Esq.

Per ton of 2000 lbs. f. o. b. vessels.

WHOLESALE.

Brier Hill (Church Hill)	3 30
" " No. 2 Grades	3 10
Straitsville Lower Vein	2 75
Hocking Valley	2 75
Massillon [No. 2 grades 15 cents less)	2 75
Tuscarawas Valley	2 30
Columbiana	2 30
Nut coal, various grades	1 90@2 20
Screenings, " "	1 35@1 75
Youghiogheny gas coals	3 75

RETAIL TRADE.

	1 to 10 tons	10 tons upw'd.
Brier Hill lump	$4 00	$3 75
Massillon and Mineral Ridge lump	3 75	3 50
" " " " nut	3 50	3 25
Straitsville Lower Vein, and Hocking lump	3 60	3 35
" " " " nut	3 40	3 15
Rich Hill lump	3 50	3 35
" " nut	3 25	3 00
Columbiana, lump	3 00	2 75
" nut	2 50	2 35
Lacka'a., Wilkesbarre and Pittston egg and grate,	6 10	5 85
" " " stove	6 25	6 00
" " " chestnut	6 25	6 00

Lehigh $1 00 per ton higher.

All sales to be strictly cash with order or C. O. D.

Cincinnati, O. Dec. 13, 1877.

Specially reported by the Consolidated Coal and Mining Co.

	AFLOAT. Per bush. of 72 lb.	AFLOAT. per ton 2,000 lb.	DELIVERED. Per bush. of 72 lb.	DELIVERED. per ton 2 000 lb.
Youghiogheny lump	10c.	$2 78	12c.	....
" nut	8c.	2 22	10c.	....
" slack	4½c.	1 25	8c.	....
Camden, W. Va	7c.	1 94	11c.	....
Peytona Cannel	13c.	3 71	18c.	....
Connellsville coke		3 60	10c.	....
Youghiogheny coke	5c.	2 64	8c.	....

Anthracite per ton of 2,000 lb.

	Wholesale.	Retail.
Wilkes-Barre and Lackawanna (all sizes)	$5 50	7 00
Lehigh	6 50	7 50

Hamilton, Ont. Dec. 13, 1877.

Specially reported by H. BARNARD.

Retail Prices, Delivered per ton of 2,000 lb.

Scr. or Wilkes-B. Grate	$5 00	Lehigh Lump	$6 00
" " Egg	5 00	Brier Hill	5 50
" " Stove	5 25	Massillon	4 50
" " Nut	5 25	Smithing	5 50

Louisville, Ky. Dec. 10, 1877.

Specially reported by Messrs. BYRNES & SPEED.

Wholesale per bushel of 72 lb.

Pittsburg	8c.	Raymond City	7½c.
Ashland (Ky.)	7	Kentucky, on cars	8

Retail.

Pittsburg	$3 00	Anthracite, per ton	7 50
Raymond City	2 75	City Made Coke per bush	7c.
Ashland, Ky	2 50	Soft Coke per bushel	7c.
Pittsburg nut	2 50		

Milwaukee, Wis. Dec. 12, 1877.

Specially reported by Messrs. R. P. ELMORE & Co.

Retail price per ton of 2,000 lb.

Anthracite, egg, chestnut, and stove	$6 50		
Lehigh lump	$7 00	Connellsville coke on RR. track	$7 25
Briar Hill	$5 25	Straitsville	4 80

Montreal, Dec. 13, 1877.

The prospective combination among the coal mining companies in the United States to increase the price of coal, helps to keep up the hopes of such coal dealers in this city as have a large supply on hand, otherwise the price of coal would likely decrease even before the opening of navigation, as the supplies on hand are more than ample to meet the wants of the city till then. Prices are unchanged and are as follows: Per net ton of 2,000 pounds delivered—Pittston and Lackawanna, stove size, $6; do do, nut and egg size, $5.75; Newcastle, smiths', $5.50; Inferior smiths', $4.50; grate, $5.00 to $5.25; Scotch steam, $4.50 to $5.00; Lower ports steam, $4.25 to $4.50. Coke, per chaldron, $2.50; charcoal, per bushed, 17 to 25 cents, according to quality and quantity taken.—*Gazette.*

New Orleans, La. Dec. 8, 1877.

Specially reported by Messrs. C. A. MILTENBERGER & Co.

PITTSBURG COAL.

At wholesale (by boat load)	35c.	per bbl. of	180 lb.
To steamboats	50c.	"	"
" manufactories	50c.	"	"
" families	75c.	"	"
In hhds. (for shipment)	$7 00 per hhd. from		5 bbls.

ANTHRACITE COAL.

Per ton of 2,000 lb.

At wholesale	$7 00 to 8 00
" retail	11 00 to 12 00

ST. BERNARD (KY.) COAL.

To steamboats	45c.	"	"
" families	65c.	"	"

Philadelphia. Dec. 13, 1877.

Specially Reported,

The trade here shows unusual activity for this time of the year, and it is all due to the expectation that some understanding will be reached by the companies, and the supply curtailed from the beginning of the year. Small sizes are in active demand both by local trade and for shipment. Every one is expecting stirring news to-day.

Vessels are very scarce and freights rising, $1.75 to $1.80 being now paid to Boston, and $1.50 to Washington.

Pittston, Pa. Dec. 3, 1877.

Pennsylvania Coal Company's Coal in yard, ton of 2000 lb.

Retail.

Lump, Egg and Stove	$2 25
Chestnut	2 00
Pea	1 00

Delivered, fifty cents per ton additional

Richmond, Va. Dec. 13, 1877.

Specially reported by S. H. HAWES, Dealer in Coal.

Per ton of 2,240 lb., f. o. b.

Kanawha Cannel	$9 00	New River Bituminous	$3 70
Coalburg Splint	5 70	Clover Hill Coal	3 00
Lewiston "	5 70	Norwood Gas & Steam Coal	2 70
Kanawha Gas Coal	4 90		

Sandusky, O. Dec. 10, 1877.

Specially reported by C. E. BLACK, Agt. Con. Coal & Mg. Co

We quote coal on cars at Sandusky, as follows:

Per ton of 2,000 lbs.

Anthracite.

	Grate.	Egg.	Stove.	Chestnut
Lehigh	$6 50	$6 50	$6 50	$6 50
Wilkes-Barre	5 75	5 75	5 75	5 75
Lackawanna	5 75	5 75	5 75	5 75

Bituminous.

Massillon	$3 00	Straitsville	$2 70
Del Carbo	2 75	Shawnee	2 70
Hocking Valley	2 70	Blossburg	4 75

Prices retailed delivered 50c.@75c. above car prices.

San Francisco, Cal.

From the *Commercial Herald* of Dec. 6, 1877.

COAL—Imports from January 1 to Dec. 1:

	Tons.		Tons.
Anthracite	19,691	Vancouver Island	94,501
Australian	804c6	Rocky Mountain	123
Coos Bay	27,581	Saghalien	190
Cumberland	10,608	Seattle	94,491
English	89,362	Bellingham Bay	10,475
Chili	8,145	Ione, Cal.	3,068
Mt. Diablo,	87,755	Carbondale, Cal.	177

"This week's arrivals have been liberal. Not a little of the Australian sold prior to arrival to the Gas Company. Prices of all descriptions continue to rule low. The imports for the week under review include the following: *Arcata*, 325 tons Coos Bay; *A. D. Snow*, from New York, 279 hhds. and 283 tons Cumberland; *Atalanta*, 1,355 tons Nanaimo; *Annie H. Smith*, 1,810 tons New South Wales; *Commonwealth*, 1,950 tons do.; *Penang*, 890 tons Seattle; *Montana*, 1,045 tons do.; *Enoch Talbot*, 1,725 tons Wellington, and *Gem of the Ocean*, 1,050 tons do. In the absence of reported cargo sales it is difficult to give correct quotations although we know of no spot sales recently made of. Wallsend at $6.75@7; English Steam, $6.50@6.75; Scotch Splint, $7.25@7.50; West Hartley, $7.75@8. Coast supplies continue liberal from all mines, but ruling rates are down to figures that leave little profit to Mt. Diablo, Bellingham Bay, Coos Bay, etc. The Seattle and Nanaimo mines are upon a higher range.

Our receipts for eleven months from the Mount Diablo mines for a period of years are as follows: 1873, 158,188; 1874, 187,196; 1875, 131,587; 1876, 101,733; 1877, 87,755.

St. Louis, Mo. Dec. 12, 1877.

Reported by JAS. J. SYLVESTER, Secretary of the Anthracite Coal Association.

Retail prices, delivered. Ton of 2,000 lb.

ANTHRACITE. per ton.

Lackawanna	$8 00@8 50	Schuylkill	8 00@8 50
Wilkes-Barre	8 00@8 50	Lehigh	9 00@9 50

BITUMINOUS.

Blossburg	9 00	Big Muddy	3 00
Pittsburg	4 50	Illinois Coals	2 50@3 00
Indiana Block	4 00	Connellsville Coke.	6 50

Toledo, Ohio. Dec. 13, 1877.

Specially reported by Messrs. GOSLINE & BARBOUR.

We report prices of coal on cars at Toledo as follows:

Ton of 2,000 lb.

Straitsville lump	$2 70	Hocking Valley nut	2 30
" nut	2 30	Massillon lump.	3 00
Shawnee lump	2 70	Cumberland	5 40
" nut	2 30	Blossburg	5 40
Hocking Valley lump	2 70		

Prices of hard coal on cars at Toledo are as follows

Ton of 2,000 lb.

	Grate.	Egg.	Chestnut	Stove.
Pittston	$5 55	$5 55	$5 70	$5 80
Wilkes-Barre	5 55	5 55	5 70	5 80
Lackawanna	5 55	5 55	5 70	5 80
Lehigh	6 15	6 15	6 30	6 40

For retail delivery in city the prices are as follows: Stove and chestnut $6.45; grate and egg, $6.20 per ton; Lehigh, 60c. per ton additional.

Prices soft coal f. o. b. vessel for Lake shipments will be from 15 to 20c. per ton more than prices on cars.

Freights on Bituminous Coals from the Mines to Tide Water Shipping Ports.

For the above rates we refer to our issue of Nov. 17.

For freights on *Lehigh and Wyoming Coal* we refer to our issue of Sept. 15.

For freights on *Schuylkill Coals* we refer to our issue of Nov. 17.

For rates of freights on the Chesapeake & Ohio Railroad we refer to our issue of Dec. 1.

Towing.

For the above see issue of December 1.

Freights

Per ton of 2240 lb.

Representing the latest actual charters to Dec. 13, 1877.

PORTS.	From Philadelphia.	From Baltimore	From Georgetown.	From Elizabethport, Port Johnson, South Amboy, Hoboken and Weehawken.
Augusta, Me.	.. ..	....	....	2 25
Albany	....	....	....	....
Alexandria, Va	....	....	....	....
Brooklyn, N.Y.	....	....	....	....
Bangor, Me.	....	....	....	1 60
Bath, Me.	....	1 75	....	1 50
Baltimore	55@65	....	....	....
Boston, Mass.	170@185	1 75	....	1 50
Bridgeport, Ct.	....	1 45	....	70
Bristol, R. I.	....	....	....	90
Beverly, Mass	....	.. ..	....	1 50
Cambridge, Mass.	....	.. ..	....	1 50
Charleston, S.C.	100@102½	....	....	....
Danversport, Mass	....	....	....	....
East Cambridge, Mass	....	....	....	....
Fredericksburg, Va.	1 20	....	....	....
Fall River	....	1 45	....	90
Gloucester	....	....	....	....
Georgetown, D.C	....	....	....	....
Hartford, Conn.	....	....	....	....
Hoboken	....	....	....	40
Hudson, N.Y.	....	....	....	....
Jersey City	....	....	....	40
Lynn, Mass	....	....	....	....
Medford, Mass.	....	....	....	....
Middletown	....	....	....	90
Milton Mass.	....	....	....	....
Nantucket, Mass.	....	....	....	90
New Bedford	1 35	1 50	....	90
Newburyport	....	1 90	....	1 75
New Haven	....	1 45	....	70
New London	1 35	1 45	....	70
Newport	....	....	....	90
New York	75	1 30	....	40
Newark, N.J.	....	....	....	....
Norfolk, Va.	80@85	....	..	....
Norwich	....	....	.	90
Pawtucket	....	.. ..	....	1 00
Philadelphia	....	....	....	....
Portland	1 50	1 75	....	1 50
Portsmouth, N. H.	....	1 90	....	1 65
Providence	1 30	1 45	....	90
Petersburg, Va.	1 25	....	....	....
Rockport	....	....	....	....
Richmond, Va.	100@105	....	....	....
Saco	....	....	....	1 75
Salem, Mass.	....	1 75	....	1 50
Saybrook, Mass.	....	....	....	....
Savannah, Ga.	....	....	....	....
Somerset, Mass.	1 30	....	....	90
Troy	....	....	....	....
Wareham	....	1 55	....	....
Washington	125@130	....	....	....
Wilmington, N.C.	....	....	..	.. ..
West Farms, N.Y.	....	....	....	....

* And discharging and towing. † And discharging. ‡ And towing. § 3c per bridge extra.

IRON MARKET REVIEW.

New York.

FRIDAY EVENING, Dec. 14, 1877.

American Pig.—Trade has settled down to very great quietness, and prices are decidedly weaker, although nominally unchanged. We learn of no business worth reporting. We quote No. 1 foundry $18@19; No. 2 foundry, $17@18, and forge $16@17.

Scotch Pig.—We are reported sales, on privat terms, of 200 tons of Eglinton, and 100 tons of Carnbroe. We continue to quote Eglinton at $24; Coltness, $26, and Glengarnock $24.50.

Rails.—There is a rumor of a very large sale of steel rails to the Pennsylvania Railroad Company, but this we have been unable to confirm. We quote steel rails at mills at $40@43, and iron at $33@37.

Old Rails.—In the absence of business we quote these at $18@18.50.

Wrought Scrap.—There is nothing doing in this article, which is quoted at $22@23.

Baltimore, Md. Dec. 10, 1877

Specially reported by Messrs. R. C. HOFFMAN & Co.

The iron market remains dull and but little doing in pig iron. We quote prices as follows:

Baltimore Charcoal	$29@30	Mottled and White	$15@16 00
Virginia Charcoal	28@30	Charcoal C.B. Blooms	50@55 00
Anthracite No. 1	19@20	" " Billetts.	55@60 00
" " 2	18@19	Refined Blooms	45@50 00
Anthracite No. 3	17@18		

Chattanooga, Tenn., Dec. 11, 1877.

There has been very little activity displayed in the iron trade here since my last report. The only sales worthy of note are 50 tons charcoal foundry for New Orleans and 100 tons mill for the West. The very unsatisfactory condition of the trade with the recent failures of Mullen & Mahoney and Evans, Dalzell & Co. at Pittsburg have caused unusual uneasiness among some of our furnaces reported losers by the above failures, and a determination to sell only for cash is prevalent.

Specially reported by J. F. JAMES, dealer in pig iron, ores, etc

Tenn., Ala. and Ga. Charcoal, No. 1 Foundry	$18 00@19 00
Tenn., Ala. and Ga. Charcoal, No. 2 Foundry	17 00@18 00
Tenn , Ala and Ga. Charcoal, Gray Forge	15 00@16 00
Tenn., Ala. and Ga. Coke, No. 1 Foundry	19 00@20 00
Tenn., Ala. and Ga. Coke, No. 2 Foundry	17 00@18 00
Tenn , Ala. and Ga. Coke, Gray Forge	15 00@16 00
Chu oal or Coke, white and mottled	14 00@15 00
Tenn , Ala. and Ga. Cold Blast (car wheel)	22 00@28 00

Old rails	18 00@19 00	Wrought scrap, No. 2	12 00
Old car wheels	16 00@17 00	Cast scrap	10 00
Wrought scrap, No 1	17 00	Muck bar	32 00@33 00

Iron Ores.

Red Hematite (about 55 per cent. metallic iron) f. o. c. at mines	1 25
Brown Hematite (about 55 per cent. metallic iron)	1 75

Cincinnati, O. Dec 11, 1877.

Specially reported by Messrs. TRABER & AUBERY, commission merchants for the sale of pig iron, blooms, ore, etc.

CHARCOAL.

Hanging Rock No. 1 Foundry and B	$23 00@23 50	—4 mos
" No. 2 "	22 00@	—4 mos
" Soft Silver Gray	21 00@22 00	—4 mos
" Mill	18 00@20 00	—4 mos
Tennessee, No. 1 Foundry	22 00@	—4 mos
" " 2 "	21 00@	—4 mos
" Mill,	18 00@19 00	—4 mos

STONE COAL.

Ohio, No. 1 Foundry	20 00@20 50	—4 mos
" " 2 "	19 00@19 50	—4 mos
" " 3 "	18 00@18 50	—4 mos
" Mill	18 00@18 50	—4 mos

COKE.

Ohio & W. Va. No. 1 Foundry	21 00@22 00	—4 mos
" " " 2 "	20 00@21 00	—4 mos
" " Mill	18 00@19 00	—4 mos

CAR-WHEEL.

Hanging Rock, C. B.	Hecla, Vesuvius, Jefferson, Etna.	38 00@	—4 mos
Maryland,	" Amherst & Cedar Pt.	37 00@	—4 mos
Missouri,	" Maramec	31 00@	—4 mos
Alabama,	" Woodstock	32 00@	—4 mos

BLOOMS.

Charcoal	45 00@50 00—cash.

SCRAP IRON.

Cast	40c.@ 45c — "
Wrought	62½c.@ 1 00— "

Columbus, O. Dec. 13, 1877.

Specially reported by KING, GILBERT & WARNER, dealers in Pig Iron and Ores.

There is no improvement to note in the pig iron market. Some concessions in prices have been made on round lots of soft foundry iron. The usual time, four months, allowed on quotations.

FOUNDRY IRONS.

No. 1 Hanging Rock Charcoal	$23 50 to 24 00
No. 2 " " "	22 00 to 22 50
No. 1 Hocking Valley soft and strong from pure limestone ores	21 50 to 22 00
No. 2 Hocking Valley soft and strong from pure lime-tone ores	20 50 to 21 00
No. 3 Hocking Valley soft and strong from pure limestone ores	19 50 to 20 00
No. 1 American Scotch	20 50 to 21 00
No. 1 Eliza, (Jackson County)	20 50 to 21 00
No. 1 Shawnee	20 50 to 21 00
Silver Gray	18 00 to 19 0

MILL IRONS.

Gray neutral	18 50 to 19 00
Mottled and white neutral	17 50 to 18 00
Gray cold short	17 50 to 18 00
Mottled and white cold short	16 50 to 17 00

Louisville, Ky. Dec. 11, 1877.

Specially reported by Messrs. GEORGE H. HULL & Co.

The iron trade holds its own well at the beginning of the closing month of the year. The demand for foundry grades holding the lead. There has been no quotable change in prices. The usual time, four months, allowed on quotations below.

FOUNDRY IRONS.

No. 1 Ha ging Rock, Charcoal	$23 00@24 00
No. 2 " " "	20 00@21 00
No. 1 Southern Charcoal	20 00@21 00
No. 2 " "	19 00@20 00
No. 1 Hanging Rock, Stonecoal and Coke	20 00@22 00
No. 2 " " " " "	19 00@20 00
No. 1Southern Stonecoal and Coke	19 00@20 00
No. 2 " " " " "	18 00@19 00
"American Scotch"	20 00@22 00
Silver Gray	18 00@19 00

MILL IRONS.

No. 1 Charcoal, Cold-short and Neutral	18 50@19 50
No. 1 Stonecoal and Coke, Cold-short and Neutral	18 00@18 50
No. 2 " " " " " "	17 50@18 00
No. 1 Missouri and Indiana Red-short	21 00@22 00
White and Mottled, Cold-short and Neutral	15 00@16 00

CAR-WHEEL AND MALLEABLE IRON.

Hanging Rock, and Cold Blast	34 00@38 00
Alabama and Georgia "	25 00@33 00
Kentucky Cold-blast	25 00@33 00

Pittsburgh, Pa. Dec. 11, 1877.

Specially reported by A. H. CHILDS

	4 mos.		4 mos.
No. 1 F'dry	$21 00@22 00	Mottled&White.	$16 50@18 00
" 2 "	20 00@21 00	Hot blast C'coal.	21 00@25 00
Gray Forge	18 00@20 50	Cold " Western	38 00@40 00

Richmond, Va. Dec. 12, 1877.

Specially reported by ASA SNYDER, Esq.

There is very little doing in pig iron. It is improbable that a revival will take place for the next six or eight weeks. Prices continue firm at quotations.

Virginia Cold Blast Charcoal Pig Iron, cold short		$20 to $26
" " " " " "	neutral	28 to 30
" Warm " " " "		20 to 25
" Anthracite 1 X		20 to 22
" " 2 X		19 to 21
" " 2		18 to 19
" " Coke West Va. 1 X		22 to 25
" " " " "	X 2	21 to 22

St. Louis, Mo. Dec. 11, 1877.

Specially reported by Messrs SPOONER & COLLINS, Commission Agents for all kinds of Iron.

Pig iron is growing a little dull. Prices remain about the same although large lots of iron can be bought at lower prices than our quotations. Very few of our furnacee are in blast, and the present prospect indicates an early advance in Missouri irons. There is but little cheap Missouri iron in the market, and when the supply fails to meet the demand the price must go up.

COLD BLAST CHARCOAL—ALL NUMBERS.

Hanging Rock	25@38	Assorted Bar Iron $2. rates.	
Pennessee	26@30	No. 1 Wrought Scrap 80c. cwt.	
Kentucky	25@30	Heavy cast "	65 "
Missouri	26@30	Light " "	55 "
Georgia	25@30	Old rails	19 00 to 20 00
Alabama	26@30	Old car wheels	17 00 to 18 00

	No. 1.	No. 2.	Mill.	White and Mottl'd.
Missouri stone coal	$22 00	$21 00	$20 00	19 00
" charcoal	22 00	21 00	20 00	20 00
Tennessee charcoal	22 50	21 00	20 00	19 00
Tenn. coke very soft and strong	23 00	21 00	20 00	18 50
Hanging Rock charcoal	25 00	24 00	23 00	.....
" " cold short	24 00	23 00	.....	.....
	Ex No.1	No. 1.	B No. 1.	No. 2.
Alice Hanging Rock coke	$25 00	$24 50	$24 00	$22 50
Quinnimount, W.Va., coke	23 50	23 00	22 00	21 00

METALS.

NEW YORK, FRIDAY EVENING, Dec. 14, 1877.

The metal market has been exceedingly quiet, but this is not unexpected for this time of the year.

Gold Coin.—The price of gold has ranged from 102¾ to 103⅜ and closed at 102⅞.

Bullion.—The sale by the English Government on Wednesday of a very large amount of India bills at a rate below the parity of silver caused a marked decline in the latter in London. The market opened at 54⅛d, and closed at 53½ @ 53⅝d, where it has since remained inactive and dull. As our production of silver cannot be estimated above $40,000,000 per annum and the capacity of our mints more than $30,000,000, we will probably have a surplus of $10,000,000 to ship abroad, to be added to the very large amount which the German Government will supply. The future of the silver market is quite certain to depend on the East India demand no matter which of the pending schemes our congress may enact into law. Under the present aspect of the India market we do not therefore see much prospect of an advance in silver. The price of silver here is 116¼.

Daily Range of Silver in London and New York per oz

Date.	London. Pence	New York. Cents	Date.	London. Pence	New York. Cents
Dec. 8	55⅛	117	Dec 12	54⅛	117
" 10	55⅛	117	" 13	53½ ¾	116¾
" 11	53⅛	117	" 14	"	115¾

BULLION SHIPMENTS.

November,	Eureka Cons.	Nevada	..	*$450,000 00
"	Chollar Potosi	"	..	*21,000 00
"	Martin White	"	..	*64,433 00
"	Alps	"	..	*31,300 00
"	Tybo Cons.	"	..	*74,591 00
"	Standard	"	..	467,444 00
"	Idaho (G. V.).	California	..	*43,826 00
December 1.	Endowment,	"	..	2,200 00
" 3.		Utah	..	5,560 00

* For month from 1st to 30th inclusive.
4 " 5th to 26th "

Yellow Jacket Gold and Silver Mining Co.—The bullion yield of this company, from the date of its location in 1863 to the present time, it is stated, amounts to $14,372,172.

The San Francisco treasure exports forwarded via railroad compare as follows for the first 11 months of 1876 and 1877: Totals, 1875, $45,600,513; 1877, $52,582,800. The shipments of gold coin overland, by express, for the first 11 months, from January 1, 1876–7, compares as follows: Totals, 1776, $19,788,660; 1877, $26,991,404; increase this year, $7,202,744.

The Oregon treasure shipments to San Francisco for the first 11 months of 1876 and 1877 were: Totals, 1876, gold dust $460,545; gold coin $828,818. For 1877, gold dust, $309,702; gold coin, 903,743.

The Carson City Mint Coinage for the month of November amounted to $167,000.

Copper.—We are reported sales of 200,000 lbs. of copper, at 17⅝c. to 17⅞c., while there is a rumor of a sale of 50,000 lbs. at 17⅝c. We are also reported a sale of 100,000 to 200,000 lbs. futures, at 18¼c. Cable advices to-day report an advance in London, Chile Bars being quoted at £66, and Wallaroo £75. Best selected is reported to be at £75, but this we are unable to confirm. The last copper has arrived by water from Lake Superior.

Tin.—This article has been exceedingly quiet and weak. In London the price declined to £66 for Straits, but had recovered at the close to-day to £67 10s, at which price it was firm. On the 12th inst. the quotation at Singapore was $19.50, with exchange at 48. Prices in this market are for the moment nominal. We quote Straits, 15⅞c. to 16 c. gold; L & F, 15⅝c.; Refined, 15¾; Banca, 18c.

Tin Plates.—These have been very quiet, and are unchanged in price. We quote in gold, per box, as follows: Charcoal Tins, $6.25 to $6.37½, and Ternes, $6; Coke Tins, $5.50, and Ternes, $5.37½.

Lead.—We are reported sales of about 100 tons at 4½c. to 4.60c., mostly at the lower price. The market at the close is 4½c.

Spelter and **Zinc.**—Spelter is quiet at 5¾ to 6c. Sheet Zinc continues to be quoted at 7⅝c. to 7½c.

Antimony.—Cookson's is quoted at 13c., and Hallett's at 12c., gold.

Quicksilver.—The San Francisco *Commercial Herald* of December 6 says:

"The State's production seems to be falling off, and, by reason of lessened receipts, leading holders are firm in demanding 47½c., although several invoices have been placed for export during the week at 45c.@46c. There are some Mexican orders here unexecuted. The *City of Peking* carried to Hongkong only 300 flasks. The market at the close shows signs of an upheaving in values.

"The Quicksilver exports by sea for the past week, and since the 1st of January, were as follows:

	Flasks.	Value.
Totals	400	$14,120
Previously in November	3,489	123,454
Totals since November 1	3,889	137,574
Previously since January 1	41,318	1,459,300
Totals since January 1, 1877.	45,207	1,596,874
Totals same period 1876	38,964	1,557,490
Increase this year	6,243	39,384

Our receipts of this article for eleven months compare with 1876 as follows:

1876	57,547 Flasks.
1877	65,162 "
Increase this year.	7,615 "

Our exports by sea for November, 1876–7, are as follows:

1876	Flasks 3,596	Value	$143,271
1877	" 3,489	"	123,454

Salt Lake Ore and Metal Market.

SALT LAKE CITY, UTAH, December 14. 1877.

Argentiferous Lead (Base Bullion).—$40 to $42 per ton for lead; $1.17 to $1.18 per ounce for silver: $20 per ounce for gold. The quotations for silver are based upon the silver contents in the lead of 80 to 120 ounces per ton of 2,000 lb.

Ore and bullion shipments from Salt Lake during week ending Dec. 1, 1877:

BULLION.

Consignor.	Consignee.	lb.	Totals.
Smelting Works			
Germania	Omaha	84,344	
Morgan	"	43,875	128,219
Morgan	Penn'a L. Co	43,948	
Mingo	"	173,032	
Telegraph	"	208,393	
Pascoe	"	21,002	
Frisco	"	20,604	466,979
Pascoe	Cook & Co., Chic	21,395	
Durell	" "	63,346	84,741
			679,939

ORE.

Consignor.	Consignee.	lb.	Totals.
ConklinSampl. W.	Omaha	22,600	
Spanish Mine	"	154,700	177,300
Lead "	Sacramento, Cal	44,000	
Yosemite "	"	88,000	132,000
Carbonate "	Hilliard	210,600	210,600
			519,900

Waterman bullion not reported since last reports. Contract for 30 cars is being filled to B. & G., New York, and held here.

Mr. J. B. Meader, under date of the 8th inst., gives the following statement of bullion shipments:

	Pounds.
Shipments of base bullion for November	4,277,889
Shipments of base bullion for 10 months	40,033,999
Total for 11 months	44,311,888

COAL TRANSPORTATION AND GENERAL MINING STOCKS.

Name and Location of Company.		Feet on Vein.	Capital Stock	Shares. No.	Shares. Par Val.	Assessments. Total levied to date.	Assessments. Date and amount per share of last. Mo.	Yr.	Amt.	Dividends. Total paid to date.	Last Dividend. Mo.	Yr.	Amt.	Rate per Ann.	Highest and Lowest Quotations per Share in Currency. Dec. 8. H.	L.	Dec. 10. H.	L.	Dec. 11. H.	L.	Dec. 12. H.	L.	Dec. 13. H.	L.	Dec. 14. H.	L.	Sales.
Coal Stocks.			$			$				$				Per cent.													
Consol. Coal	Md.	....	10,250,000	102,500	$100	*	.....	.....	.....	...	Jan.	1877	2½	10	..	..	..	..	..	..	..	..	..	..	..	..	.....
Del. & H. Canal	Pa.	....	20,000,000	200,000	100	*	.....	.....	.....	38,821,104	Aug.	1876	4	9	52	49¾	52¼	50⅜	52	50⅜	52⅜	50¼	51	48½	51½	50	21,311
Del., Lac. & W.RR	Pa.	...	26,200,000	524,000	50	*	.....	.....	.....	....	July	1876	2½	5	51¼	50¾	51⅞	50½	51⅜	50⅜	51½	49	50	48¼	50⅜	49	130,679
Lehigh C. & Nav	Pa.	....	10,448,550	208,971	50	*	.....	.....	.....	....	Nov.	1876	1⅜	5½	19	18¾	19⅜	19	19	18¾	19	18¼	18¾	18½	18¾	18⅜	4,624
Lehigh Valley RR	Pa.	....	27,042,900	540,858	50	*	.....	.....	.....	....	Oct.	1877	¼	5	40	40	40¾	40¼	41	40½	40⅜	40¼	40¾	40⅜	40⅜	40½	750
Maryland Coal	Md.	....	4,400,000	44,000	100	*	.....	.....	.....	....	Jan..	1876	1½	1½	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
N. J. Central RR.	Pa.	....	20,600,000	206,000	100	*	.....	.....	.....	....	Apr.	1876	2½	2½	14¼	13⅝	14¼	14¼	14¼	13⅞	13¾	13	12½	12⅜	13¼	13	1,171
Penna. Coal	Pa.	....	5,000,000	100,000	50	*	.....	.....	.....	....	Aug.	1877	3	12	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Pennsylvania RR	Pa.	....	68,870,200	1,377,404	50	*	.....	.....	.....	....	Nov.	1877	1¼	8	31¼	31⅛	31⅞	31¼	31⅝	31¼	31⅝	31⅜	31½	31¼	32	£17⅝	35,120
Phil. & Read. RR	Pa.	....	34,278,175	685,563	50	*	.....	.....	.....	43,012,497	Jan..	1876	*2½	10	16⅞	16⅜	17⅛	16¾	16¾	16⅜	16⅝	16⅜	16⅜	15⅞	16⅛	16⅜	36,417
General Mining Stocks																											
Alpha Cons. g. s	Nev.	300	3,000,000	30,00	100	210,000	Aug.	1877	$1 00	...	.....	.....	.....	..	15	..	13¾	..	..	..	13⅜	..	..	..	13¾	..	450
American	Colo.	....	1,000,000	100,000	10	*	.....	.....	.....	10,000	Dec.	1877	0 10	12	5⅛	..	5⅜	5⅛	5⅛	5⅛	5¼	..	5⅜	5¼	5¾	5⅜	6,420
Am. Flag, g	Colo.	5,300	600,000	50,000	10	*	.....	.....	.....	.....	.....	.....	.....	..	11c	..	11c	10c	..	..	9c	..	..	..	..	..	3,200
Belcher. g. s	Nev.	1,040	10,400,000	104,000	100	1,072,400	Sept	1877	1 00	15,397,200	Apr.	1876	$1 00	12	..	..	8	..	..	..	7½	..	..	..	..	..	500
Bertha & Edith G	Vir.	645 acs.	3,500,000	350,000	10	*	.....	.....	.....	.....	.....	.....	.....	..	5c	4c	4c	..	..	..	4c	..	4c	3c	4c	..	6,100
Best and Belcher, G. S.	Nev.	545	10,080,000	100,800	100	337,792	Aug.	1877	1 00	...	.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Bobtail, G	Colo.	2,500	1,736,630	227,326	5	*	.....	.....	.....	....	.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Bobtail Tunnel, g	Colo.		100,000	20,000	5	6,000	July	1873	0 30	20,000	Dec..	1876	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Bullion, G. S.	Nev.	943½	10,000,000	100,000	100	2,702,000	Oct.	1877	1 50	....	.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Caledonia, G. S.	Nev.	2,188	10,000,000	100,000	100	1,435,000	Oct.	1877	75	.....	.....	.....	.....	..	5¾	..	5	..	5	..	..	..	..	..	..	..	500
California, G. S.	Nev.	600	54,000,000	540,000	100	...	.....	.....	.....	20,520,000	Nov.	1877	2 00	24	..	..	..	..	..	..	..	..	..	..	..	..	..
Chollar Potosi, G. S.	Nev.	1,400	2,800,000	28,000	100	1,506,000	Oct.	1877	3 00	3,080,000	Feb..	1872	1 00	12	..	..	..	..	..	..	..	..	..	..	..	..	.....
Cleveland, G	Colo.	3,715	250,000	25,000	10	*	.....	.....	.....	.....	.....	.....	.....	..	..	..	..	..	..	..	7⅞	..	..	..	..	..	100
Cons. Hercules & Roe	Colo.	16,500	1,000,000	100,000	10	*	.....	.....	.....	120,000	.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Cons. Imperial, G. S.	Nev.	468	50,000,000	500,000	100	575,000	Oct.	1877	0 20	.....	.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Con. N. Slope & E.C.T.	Colo.	15,000	500,000	10,000	50	*	.....	.....	.....	.....	.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Cons. Virginia, G. S.	Nev.	710	54,000,000	540,000	100	474,600	June	1873	3 00	34,560,000	Nov	1877	2 00	24	24½	..	..	..	..	..	..	..	..	..	..	..	10
Confidence, G. S.	Nev.	130	2,496,000	24,960	100	243,840	Mar.	1873	1 00	78,000	May.	1865	8 ⅓	8⅓	6¾	..	7½	..	6¾	..	6⅞	..	..	..	6¼	..	600
Crown Point, G. S.	Nev.	600	10,000,000	100,000	100	1,573,370	Sept.	1877	1 00	11,588,000	Jan..	1875	2 00	24	..	..	..	..	..	..	8¾	..	..	..	..	..	200
Douglas	Colo.	21,000	1,000,000	10,000	100	*	.....	.....	.....	.....	.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Eureka Cons. G. S. L.	Nev.	..	5,000,000	50,000	100	100,000	May	1876	1 00	1,300,000	Oct.	1877	3 00	24	40	..	39¾	..	39½	..	39⅜	..	..	..	..	..	500
Eureka G. Mg. G	Cal'f	1,680	2,000,000	20,000	100	.....	.....	.....	.....	2,134,000	Aug.	1877	2 00	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Exchequer, G. S	Nev.	400	10,000,000	100,000	100	280,000	Sept.	1876	1 00	.....	.....	.....	.....	..	..	..	5½	..	..	..	..	..	..	..	..	..	100
Gould and Curry, G. S.	Nev.	612	10,800,000	108,000	100	2,450,000	Aug.	1877	1 00	3,826,800	Oct..	1870	10 00	..	..	..	12	..	..	..	10½	..	..	..	..	..	300
Granville Gold	N. C.	9,000	1,000,000	100,000	10	*	.....	.....	0 50	.....	.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Hale & Norcross, G. S.	Nev.	400	11,200,000	112,000	100	2,634,000	Oct.	1877	1 00	1,598,000	Apr.	1871	5 00	12	..	..	12¼	..	..	..	12	..	..	..	12½	..	300
Henry Tunnel	Nev.	3,000	2,000,000	80,000	25	*	.....	.....	.....	.....	.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Hukill, G. S	Colo.	3,288	1,000,000	100,000	10	*	.....	.....	.....	110,000	Dec..	1877	0 10	12	..	..	..	..	..	..	..	..	..	..	..	..	.....
Julia Cons., G. S	Nev.	3,000	11,000,000	110,000	100	440,000	Aug.	1877	1 00	.....	.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Justice, G. S	Nev.	2,100	10,500,000	105,000	100	2,027,500	Oct.	1877	2 00	.....	.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Kentuck, G. S	Nev.	95	3,000,000	30,000	100	270,000	Dec..	1874	1 00	1,252,000	Mar.	1870	5 00	..	6¼	..	6¼	..	5¾	..	5¾	..	6	..	5¾	..	700
Kosseuth, G. S	Nev.	2,700	5,400,000	108,000	50	421,200	Aug.	1877	0 15	....	.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Lacrosse	Colo.	3,900	1,000,000	100,000	10	*	.....	.....	.....	.....	.....	.....	.....	..	24c	..	24c	..	26c	24c	28c	26c	34c	30c	36c	32c	11,500
Leopard, L. G. S	Nev.	1,500	5,000,000	50,000	100	100,000	July.	1877	50	162,500	Dec..	1876	0 50	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Lucerne Mining	Colo.	4,200	5,000,000	500,000	10	*	.....	.....	.....	.....	.....	.....	.....	..	..	..	4	..	..	..	..	..	3¾	..	..	..	200
Mariposa, preferred	Cal.	44,387	5,000,000	50,000	100	1,425,000	June	1877	1 00	.....	.....	.....	.....	..	..	..	3	..	..	..	..	..	..	..	..	..	400
" common	"	acres.	10,000,000	100,000	100	1,425,000	June	1877	1 00	...	.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Memphis	Colo.	6,000	300,000	60,000	5	*	.....	.....	.....	.....	.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Merrimac, s	Mass.	1,500	500,000	50,000	10	*	.....	.....	.....	100,000	Dec..	1877	0 10	12	..	..	..	..	..	..	..	..	..	..	..	..	.....
Mexican, G. S	Nev.	600	10,080,000	100,800	100	181,440	Aug.	1877	0 30	.....	.....	.....	.....	..	..	..	16⅜	..	16	..	16	..	16	..	..	..	500
Moose	Colo.	39,000	2,000,000	200,000	10	*	.....	.....	.....	125,600	Dec..	1877	0 25	10	7⅜	..	7⅜	7⅜	7½	7⅜	7⅜	7⅛	7½	7⅜	7⅜	7	15,960
N. Y. & Colo., G	Colo.		1,000,000	50 000	20	*	.....	.....	.....	20,000	Mar.	1877	0 20	..	2¼	2⅛	2¼	2⅛	2¼	2⅛	2⅜	1⅛	2¼	2¼	2⅛	2¼	3,400
Northern Belle, s	Nev.	1,600	5,000,000	50,000	100	...	.....	.....	.....	1,400,000	Oct.	1877	1 00	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Ontario	Utah	3,000	10,000,000	100,000	100	*	.....	.....	.....	850,000	Dec..	1877	1 50	6	29¾	..	30	29⅜	..	..	29	28½	29⅜	29	29⅛	..	1,355
Ophir, G. S	Nev.	675	10,080,000	100,800	100	2,934,400	May.	1875	2 00	1,394,400	Mar.	1864	4 00	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Original Comstock, G. S	Nev.	....	10,000,000	10,000	100	.....	.....	.....	.....	.....	.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Overman, G. S	Nev.	1,200	3,840,000	38,400	100	2,567,880	Nov.	1877	3 00	....	.....	.....	.....	..	..	..	26¾	..	..	..	26	..	..	..	25	..	300
Pleasant View, G	Colo	1,200	200,000	20,000	10	*	.....	.....	.....	.....	.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Quicksil. preferred	Cal.	8,500	4,291,300			*	.....	.....	.....	.....	.....	.....	.....	..	..	..	..	..	..	..	..	..	31	..	31	..	400
" common	"	acres.	5,708,700	100,000	100	.....	.....	.....	.....	.....	.....	.....	.....	..	16½	..	17½	..	..	..	16¾	..	..	..	..	..	500
Raymond and Ely, G. S.	Nev.	5,000	3,000,000	30,000	100	540,000	Dec.	1876	1 00	3,075,000	Sept.	1873	3 00	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
St. Joseph, L	Mo.	2600 acs.	1,000,000	100,000	10	....	.....	.....	.....	250,000	.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Santiago, G. S	Nev.	2,000	11,200,000	112,000	100	.....	.....	.....	.....	.....	.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Savage, G. S	Nev.	800	11,200,000	112,000	100	3,418,500	Sept.	1877	1 00	4,460,000	June	1869	3 00	..	13¼	..	13¾	..	13¼	..	13½	..	13½	..	13	..	1,000
Seaton, G. S	Colo.	1,700	500,000	50,000	10	*	.....	.....	.....	10,000	May.	1877	0 10	12	..	..	..	..	..	..	..	..	..	..	..	..	.....
Seg. Belcher. G. S	Nev.	160	640,000	6,400	100	244,800	Apr.	1876	5 00	....	.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Sierra Nevada G. S	Nev.	3,650	10,000,000	100,000	100	1,800,000	Oct.	1877	0 50	102,500	Jan..	1871	1 00	10	..	..	..	..	..	..	..	..	..	..	..	..	.....
Silver City, G. S	Nev.	3,900	6,310,000	63,100	100	15,775	Nov.	1876	0 25	....	.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Silver Hill, G. S	Nev.	5,400	5,400,000	54,000	100	972,000	July.	1877	1 00	....	.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
South Comstock, G. S.	Nev.	1,500	10,000,000	100,000	100	54,000	Jan.	1877	0 25	....	.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
South. California, G. S.	Nev.	1,500	5,000,000	50,000	100	12,500	Feb.	1877	0 25	....	.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Southern Star. G. S	Nev.	1,500	6,000,000	600,000	100	....	.....	...	.....	....	.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Trenton, G. S	Nev.		10,000,000	100,000	100	...	.....	.....	.....	....	.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Union Cons., G. S	Nev.	850	10,000,000	100,000	100	285,000	Oct.	1877	25	....	.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
West Belcher, G. S	Nev.	1,000	10,000,000	100,000	100	.....	.....	.....	.....	.....	.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Yellow Jacket, G. S	Nev.	1,200	12,000,000	120,000	100	3,198,100	Sept.	1877	2 00	2,184,000	Aug.	1871	2 50	..	..	..	13	..	..	..	..	..	..	..	..	..	100
Young America, S	Nev.	1,000	3,000,000	30,000	100	64,500	Oct..	1877	0 20	...	.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
Copper Stocks.																											
Allouez, C	Mich.	..	1,000,000	20,000	50	940,000	May.	1876	5 00	....	.....	.....	.....	..	.....		.....		.....		.....		.....		.....		.....
Calumet & Hecla, C	Mich.	..	2,000,000	80,000	25	1,200,000	.....	.....	.....	12,250,000	Oct.	1877	5 00	20	.....		.....		.....		.....		.....		.....		.....
Central, C	Mich.	..	500,000	20,000	25	100,000	June	1862	0 65	1,160,000	Feb.	1877	7 00	..	.....		.....		.....		.....		.....		.....		.....
Copper Falls, C	Mich.	..	1,000,000	20,000	50	535,000	May.	1876	.....	100,000	Nov.	1871	1 00	..	.....		.....		.....		.....		.....		.....		.....
Dana, C	Mich.	..	500,000	20,000	25	68,000	Jan..	1863	0 50	...	.....	.....	.....	..	.....		.....		.....		.....		.....		.....		.....
Dawson, S	Ont.	..	1,200,000	60,000	20	....	.....	.....	.....	.....	.....	.....	.....	..	.....		.....		.....		.....		.....		.....		.....
Duncan, S	Ont.	..	1,200,000	60,000	20	75,000	July.	1876	41⅔	.....	.....	.....	.....	..	.....		.....		.....		.....		.....		.....		.....
Franklin, C	Mich.	..	500,000	20,000	25	360,000	June	1876	5 00	585,000	Nov.	1871	1 00	..	.....		.....		.....		.....		.....		.....		.....
Humboldt, C	Mich.	..	500,000	20,000	25	100,000	Sept.	1876	0 15	....	.....	.....	.....	..	.....		.....		.....		.....		.....		.....		.....
International, S	Ont.	..	1,200,000	60,000	20	....	.....	.....	.....	.....	.....	.....	.....	..	.....		.....		.....		.....		.....		.....		.....
Madison, C	Mich.	..	500,000	20,000	25	123,000	Sept.	1876	0 10	....	.....	.....	.....	..	.....		.....		.....		.....		.....		.....		.....
Mesnard, C	Mich.	..	500,000	20,000	25	160,000	Apr.	1876	0 50	....	.....	.....	.....	..	.....		.....		.....		.....		.....		.....		.....
Minesota, C	Mich.	..	1,000,000	20,000	50	436,000	June	1869	1 00	1,820,000	Mar.	1876	0 50	..	.....		.....		.....		.....		.....		.....		.....
National, C	Mich.	..	500,000	20,000	25	195,000	Oct..	1875	1 00	360,000	Oct..	1873	1 00	..	.....		.....		.....		.....		.....		.....		.....
Oscoola, C	Mich.	..	1,000,000	40,000	25	880,000	May.	1876	2 00	....	.....	.....	.....	..	.....		.....		.....		.....		.....		.....		.....
Petherick, C	Mich.	..	500,000	20,000	25	165,533	Mar.	1876	0 50	....	.....	.....	.....	..	.....		.....		.....		.....		.....		.....		.....
Pewabic, C	Mich.	..	500,000	20,000	25	185,000	June	1868	3 00	460 000	July	1873	1 00	..	.....		.....		.....		.....		.....		.....		.....
Phœnix, C	Mich.	..	1,000,000	20,000	50	817,500	Sept.	1870	3 00	20,000	Jan.	1876	1 00	..	.....		.....		.....		.....		.....		.....		.....
Quincy, C	Mich.	..	200,000	20,000	10	....	.....	.....	.....	2,130,000	Feb.	1877	4 00	..	.....		.....		.....		.....		.....		.....		.....
Ridge, C	Mich.	..	500,000	20,000	25	200,000	.....	.....	.....	90,000	Feb.	1875	1 00	..	.....		.....		.....		.....		.....		.....		.....
Rockland, C	Mich.	..	500,000	20,000	25	495,000	Jan..	1874	1 00	....	.....	.....	.....	..	.....		.....		.....		.....		.....		.....		.....
Star, C	Mich.	..	500,000	20,000	25	265,000	Mar.	1876	0 50	....	.....	.....	.....	..	.....		.....		.....		.....		.....		.....		.....
Superior, C	Mich.	..	500,000	20,000	25	340,000	Mar.	1874	0 25	....	.....	.....	.....	..	.....		.....		.....		.....		.....		.....		.....

g. Gold. s. Silver. L. Lead. c. Copper. * Non-Assessable.

Total Assessments levied to date.....46,062,530 | Total Sales of coal stocks for the week.....
Total Mining Dividends disbursed to date.....209,996,001 | Total Sales of Mining Shares for the week.....

* A dividend of 3⅓ per cent. was declared on the preferred stock of this Co. in July, 1877.

Ore shipments for November reduced to lead	356,746	
Ore shipments for 10 months reduced to lead	5,879,227	6,235,973
Total shipments of lead for 11 months		50,547,861

FINANCIAL.

New York Stocks.

NEW YORK, Friday Evening, December 14, 1877.

Only a moderate business has been done in the coal stocks during the week under review. According to the rumors for or against the formation of a coal combination have the prices of these stocks fluctuated. For our views on this question we refer to our coal trade review in another column. Delaware & Hudson Canal suddenly took a higher position in value than its neighbor, Delaware, Lackawanna & Western Railroad, which has usually held the advantage, with sales of 21,311 shares, at from 49¾ to 52 ⅝, closing at 51⅜. The reason for this advance is not apparent. An official report published during the week shows that the company has lost about $800,000 on its leased lines in this State. The business in Delaware, Lackawanna & Western Railroad has aggregated 130,679 shares at 48¼ and 51⅞, closing at 50⅝. New Jersey Central Railroad has received but very little attention—the sales amounting to but 1,171 shares at 14¼ and 12⅝ closing at 13. The consolidated mortgage bondholders of this company have expressed dissatisfaction with the management of Receiver Lathrop. They say that he is paying the interest on the first mortgage bonds, which amount to but $5,000,000, and using the surplus to reduce the floating debt instead of paying the interest on the consolidated mortgage bonds. They are preparing papers to foreclose the road.

A correspondent in the Wilkesbarre *Record* says the Delaware, Lackawanna and Western Railroad engineers have been notified to sever their connection with the Brotherhood or leave the company's employ.

Union Pacific Railroad Company.—The Ogden (Utah) *Freeman* says: On the 6th of November this company completed arrangements by which it obtains possession of all the coal mines at Coalville, by contracting with John Robinson, J. W. Farnsworth, Crismon & Co., the Wasatch Company, several mines at Grass Creek, and all others, to supply the Union Pacific with all the coal that the different mines dig for the sum of $2 per ton, delivered on the cars. This gives the railroad company a complete monopoly of the last independent coal mines between Omaha and San Francisco.

Riddlesburg Coal and Iron Company.—$400 of the 6 per cent. mortgage bonds of this company sold at auction during the week at 20 per cent.

Philadelphia Stocks.

PHILADELPHIA, Friday Evening, Dec. 14, 1877.

The coal shares dealt in on this market have been very steady, during the operations of the past week the total transactions amount to about 75,000 shares. The quotations at the close show a fractional advance as compared with prices prevailing a week ago. The Lehigh Valley Railroad Company has declared a quarterly dividend of one per cent. payable on the 10th proximo. This is equal to 50 cents per share, the same as the last quarterly dividend.

Philadelphia & Reading Railroad Co.—The annual meeting of this company will be held on the 14th of January, 1878.

Broad Top Semi-Anthracite Coal Co.—The annual meeting of this company will take place December 18.

The following Stocks and Bonds were sold at auction during the week:

Bethlehem Iron Co.—65 shares, at $15 per share.

Westmoreland Coal Co.—50 shares, at $70 per share.

Schuylkill Navigation Co.—$1,000 of the 6 per cent. bonds, due 1895, coupons J. and J., indorsed by Philadelphia & Reading Railroad Company. Coupons on at 46 per cent.

Pennsylvania Canal Co.—$5,000 of the 6 per cent. bonds due 1910, coupons J. and J., at 62 to 62⅝ per cent.

Western Pennsylvania Railroad.—$10,000 of the 6 per cent. bonds, coupons A. and O., guaranteed by Pennsylvania Railroad, at 78 per cent.

Chesapeake & Delaware Canal Co.—$1,172.68 of the 6 per cent. mortgage loan, interest J. and J., at from 73 to 76 per cent.

Miscellaneous Sales and Quotations.

Sales and quotations of the stocks and bonds dealt in here at Philadelphia, and Baltimore for the week ending the 14th inst. are given in the following tables. The Philadelphia quotations will have a * affixed. The Baltimore quotations are indicated thus †.

STOCKS.

	Quotations. Highest.	Lowest.	Closing.	Sales Shares
American Coal Co	—	—	35	—
*Cambria Iron Co	—	—	50	3
*Pennsylvania Salt Manf'g Co.	—	—	64	9
*Westmoreland Coal Co	—	—	62	—
*Buck Mountain Coal Co	—	—	25	—
*Schuylkill Nav. Co	—	—	—	—
St. Louis, I. M. & S. RR. Co	7½	7½	7⅞	35
Spring Mountain Coal Co	—	—	—	—
†Balt. & Ohio RR. Co. pref	—	—	—	—
" " " common	—	—	101	—
†Pittsburg & Connellsville RR.	—	—	—	—
†George's Creek Coal Co	—	—	99	—
†Santa Clara Mining Co	—	—	8¼	—
†Atlantic Coal Co	—	—	1.30	—

BONDS.

D. L. & W. 7s, Convt., 1892	J. & D.	—	—	100	—
" " 2d mtge., 1881	M. & S.	—	—	105¼	—
N. J. C., 1st mtge., new	F. & A.	113½	—	112	$1,000
" " 1st mt., cons. 1899	Q.	67⅛	65⅛	66	32,000
" " Convt.	M. & N.	62	—	61⅜	13,000
L. & W. B. Coal Co., cons.	Q.	34¾	33	32¾	122,000
Am. Dock & Imp. 7s	J. & J.	—	—	42	—
D. & H. C. Co., 1st m., 1884	J. & J.	99¼	—	98½	5,000
" " " " " 1891	J. & J.	100	99¼	99	17,000
" " " " " 1877	J. & J.	—	—	—	—
" " " " reg., 1894	A. & O.	—	—	93	—
" " " " coup., 1894	A. & O.	94¼	94	94¼	7,000
St. L. I. M. & S., 1st mt. 1892	F. & A.	103⅜	103	102⅝	16,000
Ches. & Ohio, 1st mt., 1899	—	—	—	25	—
*L. V. RR., con. m. 6s, 1923	J. & D.	95	—	95	4,000
" " 2d m., 7s, 1910	M. & S.	114¼	114	113⅜	3,000
" " reg., 1898	J. & D.	108½	108¼	108	15,000
" " coup., 1898	J. & D.	108	—	107½	6,000
*P. RR., 1st mtge., 1880	J. & J.	—	—	—	—
" Gen. mtge. reg., 1910	A. & O.	—	—	107½	—
" Con. m. 6s, cou., 1905	J. & D.	—	—	94	—
" " reg. 1905	Q.	—	—	—	—
" gen. M. Coup., 1910	J. & J.	108	107⅜	107⅜	6,000
" New Loan 5s	—	111	09¾	—	19,500
*P. & R. RR., 7s, 1893	A. & O.	112⅜	—	—	4,000
" " con. m. 7s. cou. 1911	J. & D.	100½	100	100	19,000
" " Deb. 6s, 1893	J. & J.	45	—	—	1,000
" " New convt. 7s. 1893	J. & J.	58	57	58	500
" " Con. mtge. 7s. reg.	J. & D.	100	—	100	3,000
" " 6s, 44-80 1880	J. & J.	—	—	—	—
*P. & R. C. & I. Co. Deb. 7s	M. & S.	—	—	—	—
*P. & R. C. & I. Co	—	—	—	—	—
*L. C. & N. Co. 6s. 1884	M. & Q.	—	—	103	—
" " RR. loan 1897	F. & Q.	102⅜	—	102	3,000
" " Con. mtge. 7s.	J. & D.	—	—	—	—
" " Cvt. gold, 1894	M. & S.	—	—	90	—
" " Gold Loan, 1897	J. & D.	91	90¼	90⅛	9,000
Schuylkill Nav., 6s. 1897	M & Q.	—	—	—	—
Pa. and N. Y. Canal, 7s.	J. & D.	111	—	—	2,000
Pa. Canal Co	J. & J.	62½	—	—	3,000
Susquehanna Coal Co. 6s.	—	—	—	90	—
†Ches. & Ohio 1st m. 6s.	M. & N.	—	—	—	—
†Balt. & Ohio 6s. 1880	J. & J.	105	—	104¾	1,000
† " " 6s. 1885	A. & O.	104¼	—	104¾	1,000
Total transactions for the week					$313,000

Copper Stocks.

Reported by Wilson W. Fay & Co., Room 7, Traveler Building, 31 State Street, Brokers in Mining and Miscellaneous Stocks.

BOSTON, WEDNESDAY EVENING, Dec. 12, 1877.

A more active market and a better feeling have been the prevailing features of the week. The tendency of the larger stocks has been to strengthen while the smaller ones have been just the opposite, rather weak than otherwise. The transactions have been confined principally to the larger stocks, and have been greater than usual, showing that a new interest is awakening in these stocks, or some of the old interest which would be better still.

Calumet & Hecla has risen steadily, a large amount of stock changing hands, and the buyers apparently willing to take more at market price, notwithstanding it closes rather soft at 179½@179¾.

Copper Falls is very weak, being offered freely by holders who do not want to pay the assesments, at .50 and .25 best bid, or $2.25@2.50, (assess. paid.)

Franklin, quiet and unchanged.

Osceola is weaker, there being sales at 17.00, and closing at 16½@17½.

Quincy is very firm, there being little stock offering, and some strong buyers in the market. The stock closes 40¼ bid, and 41 asked.

On Ridge there is no change.

Duncan Silver is lively and interesting, an immense amount of stock changing hands and the stock rapidly advancing. They have favorable reports from the mine, and some of the old heads on the street predict a large rise in it. It closes ⅞@1.

International is somewhat firmer than last week, but quiet at .12@.15.

Gold and Silver Stocks.

NEW YORK, Friday Evening, Dec. 14, 1877.

We have no special feature to note respecting the operations in mining shares during the past week; the total sales amo nt to about 55,000 shares, of which total the apparent transactions in the stock of the Moose Mining Co. figure to the amount of nearly 16,000 shares. Lacrosse has sold to the extent of 11,500 shares. at from 24 cents to 36 cents per share. Bertha & Edith has advanced to 4 cents per share, the sales amounted to 6,100 shares. The stock of the Ontario Silver Mining Co. is strong at the advance noted in our last, the sales for the week amount to about 1,400 shares.

MINING STOCK QUOTATIONS IN SAN FRANCISCO.

We give below a table showing the opening prices of mining shares in San Francisco to-day, 6 inst.

Alpha	13	Mexican	14½
Belcher	7	Northern Belle	..
Best & Belcher	20	Ophir	48½
Bullion	..	Original Comstock	..
Caledonia	..	Overman	24
California	29	Raymond & Ely	8
Chollar Potosi	40½	Santiago	..
Con. Imperial	..	Savage	..
Con. Virginia	22	Seg. Belcher	..
Confidence	7	Sierra Nevada	6
Crown Point	7⅛	Silver City	..
Eureka	37	Silver Hill	..
Exchequer	..	South Comstock	..
Gould & Curry	9½	South California	..
Hale & Norcross	10½	Southern Star	..
Indian Queen	..	Trenton	..
Julia	..	Union Con	6½
Justice	12½	West Belcher	..
Kentuck	5⅛	Yellow Jacket	11
Kossuth	..	Young America	..
Leopard	..		

The San Francisco *Commercial-Herald* of the 6th inst. says of the market in that city: "Considerable activity prevailed in the mining stock market during the past week, and the appreciation of prices was gradual, but quite perceptible by those who keep a daily record of transactions. These upward movements are frequently of so slow and unnoticeable a character, that before those who do not give them careful attention, but are constantly on the lookout to invest in advancing stocks, those of course being always preferred by this class of dealers, find the inevitable result to be a loss, for they usually obtain them when they are at the highest or turning point. The feature of the week has been the obtainment of the additional control of the Ophir to the already large number of mines in the hands of the "bonanza firm"—Flood, O'Brien, Mackay & Fair. They now have controlling possession of the very heart of the Comstock lode, including the mines of Hale & Norcross, Savage, Gould & Curry, Best & Belcher, Consolidated Virginia, California, Ophir, and Mexican, a total of 4,930 feet, represented by 1,721,600 shares. From the experience these men have obtained by the development of the present "bonanza" during the past few years, which has yielded so many millions of bullion, we should judge that they are more or less confident, that within this continuous line of mines other bonanzas exist, and for the development of which they are thus concentrating their properties. We cannot believe that this wealthy firm is doing this for the purpose of manipulating the market, like any other unprincipled stock brokers, who care not a fig for the interests of the community, but are constantly on the *qui vive* to rob the confiding—both poor and rich—in the most conscienceless manner. An improved market has set in, and we believe better rates may be looked for in the near future."

From the *Gold Hill News* of the 5th inst. we extract the following:

"The bonanza firm now control the regular Virginia line of mines from the Chollar northward, and more concentration and unity of action may hereafter be looked for. It certainly will have a good effect in the matter of drainage, and in case of no compromise or arrangement being effected with the Sutro Tunnel Company a combination can easily be formed to effect the drainage of the lower levels in some other way which might prove more advantageous than the Tunnel. Moreover, if the bonanza folks will get the control of the mines, they must work and develop them. This has been a very expensive job thus far, and it is no disadvantage to have somebody with plenty of money to foot the biggest portion of the expenses. The good prospects in Alta and the southern section of the lode generally continue."

Sutro Tunnel.—Following is the official report of progress of work in the Sutro Tunnel for the week ending December 1, 1877, the header being 8x10 feet:

Number of feet driven at last report	18,297
Number of feet driven since	71
Total number of feet in Tunnel	18,368

Water—Quantity, 902,836 gallons per day; temperature at mouth, 71 degrees; at shaft No. 1, 81 degrees; at shaft No. 2, 84 degrees; at header dry.

Air—Temperature at mouth, 46 degrees; at shaft No. 1, east, 76 degrees; west, 78 degrees; at shaft No. 2, east, 83 degrees; west, 85 degrees; at header. 95 degrees. The header was advanced 221 feet during the month of November.

The face of the header continues in easy working ledge matter, requiring constant timbering. No increase of water.

The San Francisco *Commercial Herald* of December 6 says: "Owing to the new and improved furnaces now in operation in Pennsylvania, making a large saving in coal and coke, and the use of earth gas in many foundries, Pig and other Iron can now be made much cheaper than ever before, while English Iron can now be laid down here, by reason of extraordinarily low freights, at figures lower than at any previous time. The market, at best, is at present very sluggish, sales having been made of Pig Iron, ex ship, at $26 to $27 for outside brands, while Glengarnock has sold at $28 to $30, but not to any great extent. Tin Plate, and all other goods in this line, continue to be quite neglected at low and nominal rates. The *Granada*, for Panama, carried, en route to New York via Isthmus, 680,000 lbs. Pig Lead and 340,900 lbs. Base Bullion.

Suit against the Old Telegraph Silver Mine of Utah.—Salt Lake, Utah, Dec. 9.—Eleven cases were brought in the United States District Court here on Saturday against Liberty E. Holden, formerly of Cleveland, Ohio, and four corporation defendants, by stockholders residing in Cleveland and Toledo, Ohio, and Detroit and Kalamazoo, Mich., involving the title and produce of a group of valuable mines in Bingham, this Territory, known as the old Telegraph mines. It is stated that Holden realized from the workings of these mines during the last 18 months over $1,000,000. The actions are brought to rescind the pretended purchases of stock of Eastern stockholders by Holden, while he was acting as general manager of the companies, based on alleged suppression of knowledge of the fact that the mines were largely productive, and the further fact of his misappropriation of large sums of money. It is claimed that the nominal sums of money paid to stockholders on alleged purchases of their stock, belonged to them as dividends. The cases attract general attention. Judge Schaeffer granted last evening a temporary injunction. The hearing for appointing a receiver is set down for December 27.

Ontario Silver Mining Co.—The production of this company, from the 1st to the 7th inclusive, was 26 bars, having an assay value of $43,721.54.

Idaho Silver Mining Company of Utah.—We note an auction sale of 600 shares of the stock of this company during the week at 15c per share.

Assessments and dividends.—The Gold Hill *News* publishes the following table of the mines listed on the San Francisco Stock Board, which have levied asssessments and declared dividends:

Names.	Location.	Assessments	Dividends.
Washoe.....	Nevada....	$44,808,182	$100,020,700
California....	California.	1,094,100	2,586,500
White Pine..	Idaho.	1,540,661	31,999
Idaho.....	Ne vada	3,426,000	575,000
Tuscora and Cornucopia	"	388,000	262,500
Ely District..	"	2,031,000	4,432,500
Miscellaneous	....	2,380,250	2,135,000
Totals.....		$55,578,103	$110,044,199

It will be seen that the dividends are nearly double the assessments.

California Gold and Silver Mining Company.—45 shares of the stock of this company, dividend on, were sold in Philadelphia on the 12th inst. at $30.75 per share, currency.

Gas Stocks.

NEW YORK, FRIDAY EVENING, Dec. 14, 1877.

Gas stocks are very dull, and with the exception of a decline of $5 per share in the Peoples of Brooklyn the list is unchanged.

The Old Trenton, N. J., Gas Co.—We note the statement that this company has bought up the new city company, and will advance prices.

Boston Gas Co.—We note a recent auction sale of 9 shares of the stock of this company at from $805 to $807½ per share.

Lighting the Streets of New York.—The Gas Commission, consisting of the Mayor, Comptroller, and Commissioner of Public Works, met at 2 o'clock in the office of the latter to-day and made the following awards of contracts for lighting the public lamps for the four months ending April 30, 1878: To the New York Gas Company, for the 3,085 lamps, south of Grand street, at $6.00 each for four months. To the Manhatten Gas Company for the 6,600 lamps between Grand and Thirty-fourth streets, at $6.90 each. To the Metropolitan Gas Company for 3,820 lamps being a portion of the lamps between Thirty-fourth and Seventy-ninth streets, at $6.90 each. To the New York Mutual Gas Company for 586 lamps, a portion of the lamps between Thirty-fourth and Seventy-ninth streets, at $8.00 each. To the Yonkers Gas Light Company, for the seventy-two lamps at Riverdale, Twenty-fourth ward, at $12 each. The awarding of contract for lighting between Seventy-ninth street and Harlem River, was laid over for future consideration.

It is estimated that the saving to the city under these awards for the corresponding period of 1877 will amount to about $60,000

New York Gas Company.—One hundred shares of the stock of this Company were sold at auction during the week at from $120 to $121 per share.

Manhattan Gas Company—54 shares of the stock of this company were sold at auction during the week at from 210 to 210⅛ per cent.

Citizens' Gas Company of Brooklyn.—Forty-seven shares of the stock of this company were sold at auction during the week at 85 per cent.

The Richmond, Va., Gas Co. and the Treasury Dept.—The Treasury Department having refused to pay the penalty of 5 per cent. levied by this company on account of the failure of the department to pay the bill for gas furnished the public buildings in that city within five days from the end of the month, the company has shut off the gas in the Custom House; but the collector reports he has made provision for lighting it otherwise, and that no inconvenience or interrup. tion to public business has been experienced. Had the company been willing to transmit a receipted bill, payment could have been made within the time prescribed; but it refused to receipt for the amount due until it had been actually paid, which occasioned the delay on the part of the department.

The following list of Companies in New York and vicinity are corrected weekly by GEORGE H. PRENTISS, Broker and Dealer in Gas stocks, No. 30 Broad street, N. Y.

Companies in New York and vicinity.	Capital Stock.	Par.	Dividends. Rate per an.	Am. of last.	Date of last.	Quotat'ns Bid.	As'd
	$						
Mutual, N. Y.....	5,000,000	$100	10%	2½	Oct. '77	92	95
" Gold Bonds	90,000	1,000	7%	3½	Feb. '77	100	103
N. York "	4,000,000	....	10%	5	Nov '77	120	124
Metrop. "	2,500,000	100	10%	5	June '77	131	133½
" " Certf.	1,000,000	....	7%	3½	" "	100	103
" " Bonds	500,000	1,000	7%	3½	" "	102	—
Harlem "	1,850,000	50	8%	3½	Aug. '77	95	100
Manhat. "	4,000,000	50	....‡	5	Nov '77	210	215
Brooklyn, B'klyn.	2,000,000	52	15%	5	July '77	165	175
Nassau, "	1,000,000	25	....‡	4	July '77	80	85
" " Certf.	700,000	1,000	7%	3½	July '77	—	101
People's, "	1,000,000	10	....‡	3½	July '76	20	40
" " Certf.	300,000	1,000	7%	3½	July '77	80	85
" " B'ds	325,000	....	7%	3	Feb. '77	96	100
Metrop. "	1,000,000	10	5%	2½	Nov '77	65	70
Wmsb'rg "	1,000,000	50	10%	2½	July '77	117	123
" " Certf.	1,000,000	....	7%	3½	July '77	100	102
Citizen's "	1,200,000	20	....‡	4	Jan. '77	80	85
" " Certf.	320,000	1,000	7%	3½	Oct. '77	97	100
J. C., N. J.....	750,000	20	10%	5	July '77	160	—
Cent. Westch. N.Y	466,000	50	7%	4	July '77	75	85
Subur'n " "	295,000	50	7%	3½	Oct. '77	—	95
Municipal, N.Y..	1,500,000	100	.....	.....	.....	85	100

‡ Paid irregularly.

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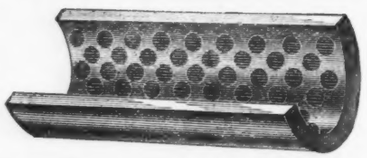

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